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THE Journal of Home Economics

For those interested in Homemaking, Institution Management, and Educational Work in Home Economics

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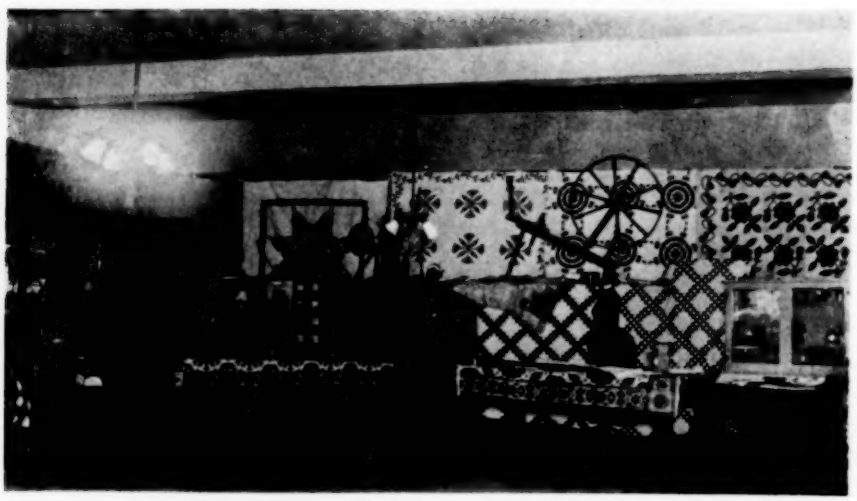

HOME ECONOMICS EXHIBIT, MONTANA STATE COLLEGE. (See page 296.)

THE
Journal of Home Economics

VOL. VIII JUNE, 1916 No. 6

THE TEACHER AND COMMUNITY WELL-BEING[1]

GEO. H. VON TUNGELN

Associate Professor of Applied Sociology, Iowa State College

When I accepted your kind invitation to speak before you, it was understood not only that I should be permitted to digress somewhat in what I have to say from this specialized subject and these special problems that you have been presenting, but that I would be expected to do so, and, if possible bring you a few thoughts, or suggestions perhaps, which will help you to realize your cherished ambition to carry your influence into the communities you serve, along other lines as well as through your specialized line, the teaching of Home Economics. In your specialized line of work you are concerned primarily with teaching persons how to get a living, or how to spend an income intelligently and economically, a thing that is quite as difficult today as to provide an income. You are, therefore, preparing persons to meet one of the two great problems that all must meet somehow, some way, the problem of getting a living. What I shall have to say will have to do more directly with the part you may also have in helping persons meet the other great problem of life that all must meet, that of living with and among our fellowmen. These two problems cannot be divorced from each other for each of us must meet both.

We are living in an age of the most rapid progress and advancement of civilization that history has ever recorded. Only as we look back over a few pages of history do we come to understand the speed of our age. There we find such facts as these to remind us of this truth. Queen Elizabeth never had a watch; Napoleon went post-haste from

[1] An address delivered before the Home Economics Division of the Iowa Teachers' Association at Des Moines, November 4, 1915.

Waterloo to Paris in the same way as did Constantine 1000 years before; Shakespeare never read a newspaper; Cromwell never saw a photograph; Washington never saw a steamboat; Lincoln never saw an electric street-railway or an automobile; President Garfield was the first president to have a telephone in the White House, though now the United States with 6 per cent of the world's population has 64 per cent of the world's telephones.

Then we are also told, by an authority, that in 1840 only seven gainful occupations were open to women in the United States, while the 1910 census lists 386 occupations open to women. There we may also find it stated that in 1870 our national wealth was put at $7,000,000,000 while it is now placed at over $140,000,000,000 and while we had 9021 miles of railroads in 1850 we now have over 258,000 miles. We are also told, by the United States Bureau of Education, that in 1914 22,000,000 persons were enrolled in educational institutions in the United States, and that the enrollment in public schools for that year exceeded the enrollment of the year before by 84,000 persons. To instruct this great army of young America required 700,000 teachers, 566,000 of whom were teachers in our public schools, and the cost of education for the year was $750,000,000. This seems a great sum, but it was less than half the value of our corn crop for that year and less, by almost one-seventh, than the value of the exports for a year from our New York harbor.

Of these things we are justly proud, for they help us especially in meeting the first of the two great problems that each of us must meet, that of getting a living. These things have come to the race largely in times of peace and through the exercise of reflective intelligence and honest industry. But with these harvests of peace are also to be noted the horrors of peace that are not necessary parts but attachments or contemporaries of them. These, like the others, are also the products of men. They are here because man is here. They are not the cause of his being here but the results of his being here. In this, then, lies the first bright prospect for their possible removal; they are not necessary to the existence of the good things, or the harvests of peace, and since man has created them or is the cause of their presence with us he is also capable of being the cause of their removal, through united effort. It is individuals that comprise society. It is also the individual that brings to society its problems, therefore, society, through the united effort of the individuals that comprise it, can meet its problems.

A few of the many greater horrors of peace need but be mentioned in order to recall to our minds many on a smaller scale, but nevertheless real, that we meet every day in our own communities if we look for them. Some of these horrors of peace are so appalling that attempts to measure them in figures mean little to us because the figures are too large for our minds fully to grasp. Here are a few examples. Our liquor bill for 1913 was something over $20 per capita or over $2,000,000,000. The industry represented a capital invested of over $775,000,000 and employed less than 100,000 employees, while that same capital invested in the lumber business would have employed 400,000 employees. Our tobacco bill for that year measures a half billion, or as much as it cost to run our public schools that year, or enough to run the Iowa State College, on its present basis, for 400 years. We spend twice as much annually for chewing gum as we do for text books for the children in our public schools, the figures being $25,000,000 and $12,000,000, respectively.

In 1910 only a small fractional part over 50 per cent of all the children in our land 16 years of age were attending school. That same year there were 5,000,000 illiterate adults in our country, Iowa alone that year having almost 30,000 white persons well over six years of age who could neither read nor write, and in that same year there were 257 school districts in the state trying to conduct a school with 5 or fewer pupils enrolled in each. Our Federal Children's Bureau tells us that we have an annual infant mortality of 300,000. Only a year ago we were told that "the procession of working children in the United States would take five years to pass a given point if the children appeared at the rate of one a minute day and night."

An investigation, a few years ago, showed that in the great metropolis of the Central West there were spent over $8,000,000 annually for the sale of women's virtue and men's manhood. What goes on in yonder city is going on every day in your community and mine, probably even on a greater scale in proportion to population, only not so highly paid in dollars and cents, perhaps. Figures also tell us that if our present rate of insanity continues our race will all be insane in a few centuries.

So one might go on almost indefinitely piling up figures of horrors of peace, and almost without exception, find in the respective communities of every one anywhere recruits who belong to one, or possibly several, of these vast armies. These are problems that challenge the best there is in each of us. A fight against them is a fight for the preservation of our race.

By far the most effective, the most interesting, and the most honorable fight that can be put into operation against them is to out-rival them with things that produce opposite results. "Things grow on what they feed upon." If, therefore, we can keep the minds of both our young people and our older people constantly engaged in thinking of things that are wholesome, and their hands busied with doing things that are energizing rather than enervating and debauching, then these monsters that produce the horrors of peace shall surely die. They will die without the other forces ever coming into hostile opposition to them or into open combat with them. They will be defeated without first having learned that an enemy is approaching, without time for better preparation to make a last stand.

In getting into the fight the most important thing to be kept in mind is that we do not need to go to some large and distant city or some backwoods nook to get into the fray. Each of us can start right in the community of which we are a part, or in which we live. This is the most important thing, for when once we can wake up and realize that there is work enough for all right around our own doors then we shall have struck the demons that wrought such havoc among us the most decisive blow that has ever been dealt them. These demons that are the causes of the horrors of peace are quite willing to operate in our own communities. They are quite as content to come into your home and mine to snatch our boy or girl or brother and sister for one of their recruits as to get them in some distant locality. And while you and I are deploring the fact that we are not away off somewhere where there would be an opportunity for us to get into the fight against these monsters, they get in their most deadly work and reap their richest harvest right in our own communities or even in our own families, because no one is even suspecting them of being present there.

We must have faith in our community, our friends, our relatives, our children, but we must not have a faith in them that leaves them no protection. We must have faith enough in them to work for them and be our best for them if we are to have any considerable part in lessening human woe and increasing human happiness.

In preparing our boys and girls to meet these great issues, all of which are to be faced primarily in meeting that second great problem that all must face, the problem of living with and among their fellowmen, our public schools have not played the rôle they might have performed.

In our industrial life there have been three rather marked changes.

First, we have the age of undifferentiated employments. This was the age of the early hunter and agriculturist when men produced all they themselves consumed. The second age is that of differentiated employments. Here the individual made the whole of one product, such as shoes, for example, but made no clothes or did no farming. The third, and present age, is that of the division of labor within differentiated employments. Here the one man no longer makes the entire shoe but only a part of it, possibly only the tacking on of the heel, and a few hundred colleagues make other and different parts of the shoe; altogether they make shoes. This specialization of work has made men far more dependent upon one another. This interdependence has been increased many fold with each change just noted, and many fold more with the coming of each new generation, through the expansion of the human wants and needs of these rising generations. We want and actually need, in our day, more things than did our great grandparents.

The net result of all this is that the man or woman of us who does nothing but tack heels on shoes is, of necessity, about as much interested in the welfare of those men or women of us who make the clothes he wears or the house he lives in, or teach his children, as he is in the man who tacks heels on shoes. So while we specialize or narrow down our life work, we,of necessity, generalize or broaden out our life interests. So we may truly say that while we are specializing man as a workman in society, we are generalizing him as a citizen of society. To be consistent, therefore, we should either train him for both or for neither.

So far, the regular work of our schools has been devoted almost entirely to the preparation of our boys and girls to meet only the one of the two great issues they must face in life. All the time has been devoted to teaching them how to get a living, and the still larger problem of preparing them to live with and among their fellowmen has been left almost wholly to chance. We have taught them how to get and prepare food, clothing, and shelter, but have left the greater problem of social adjustment in the home and society untouched. We teach the girl how to cook for a man and children and how to manage a household, and then think she is qualified to become one member in the partnership that has set for its goal of achievement the development of a home and family. We have been taking about all of the boy's time to teach him how to finance a household, and thus think we have qualified him to become the other member of this partnership.

The mere ability on the part of one member of such a partnership

to finance a household, and the mere ability on the part of the other member to manage a household economically, does not necessarily mean that a happy home will be realized as a joint product from a joint exercise of these two abilities. These two qualifications are some of the means to that end. As essentials to this end there is yet another set of means that may be briefly summed up in this way: In this partnership as in all most successful partnerships no one partner may justly set up for himself the claim that the firm is to be run absolutely according to his own idea or notion, quite irrespective of how the other member of the firm thinks it might well be done. A partnership involves more than one person. Legally a partnership is not possible unless more than one person is concerned, nor is it justly possible religiously, ethically, or politically with but one person concerned. To the highest success of such a partnership, therefore, there is need of an ability and a willingness on the part of each partner to sympathize with, recognize, and, at least sometimes, accept the thoughts and feelings of the other member or members involved, in a spirit that neither mars his happiness nor theirs.

Just how dearly we pay for our lack of development along this group of means to an end of happy homes, we see in our divorce statistics which run now annually a little more than one divorce to each twelve marriages, and in the fact that almost one-half of these are secured before the end of the fifth year of marriage. This fact in itself indicates that many persons are divorced because they have not learned to exercise their group of means. They have failed, in other words, to achieve their goal. The home that they have made would not be recognized when measured by the definition given by the little boy, who, when asked to define home, replied: "Home is the place where mother is."

Now the only way to learn to sympathize with, recognize, and sometimes accept the opinions and feelings of others, not only essential to the building of happy homes but to living happily and successfully with and among our fellowmen, is to come in contact with and learn what these views and feelings or sentiments are. And here it is especially where our greatest opportunities as teachers lie, not only in getting together the people, old and young, of our respective communities for the purpose of healthful recreation, amusement and sociability, but in helping them to become broadminded, levelheaded, with constructive tolerance, and with interchange of ideas. In this way we may best expect to lay the basis for settling some of the great problems that our respective

communities face, not by brawn but by brain, not by destruction but by discussion, not by contamination but by coherence.

No more appropriate place to hold such gatherings or continuation schools, designed to train and prepare for more efficient citizenship and growth in human well-being, could be found than our school buildings. The school-house is the one piece of common property of all and therefore the natural club-house of all. Here the teacher is also naturally recognized as the rightful leader, and put at once in a position to lead and teach parents as well as children and to profit by the teaching they can give her in thus meeting on a common level. In the same way parents will teach each other and teach their children as well as be taught by them at such community gatherings. As teachers you owe it, therefore, to the communities you serve and to yourself to foster and extend the movement that was set on foot only a few years ago, known as the social center movement, to open up school buildings and grounds, at other than school hours, to all the people of the community for citizenship training, or for the better preparing to live with and among each other.

On a smaller scale you can be instrumental in the organization and pushing of smaller groups into societies, clubs, or circles. These will be more limited in their range of activities but not less important in the things they do in their more restricted fields. For larger community undertakings these can be successfully federated for united action. I will take your time to enumerate only a few of many that could be mentioned. Others will be suggested to you by conditions in your respective communities. Some one or two of these may be just what you could set into operation in your community with success. You can not do them all; that would be attempting too much.

First, and of no little importance is The Parent-Teachers' Association. In case there is none in your community set about to organize one. Appeal to the parents to give such organization their support on the basis that since they themselves live in the interest of their children and you live because of their children that you and they, being interested in the same thing, should be interested in each other and each other's problems.

Second, organize classes or clubs to take in the older girls who are not in school and the young married women. A part of the work done in such classes or clubs might well be Home Economics work which will help them to be better able to make their own living or to be better

homemakers, but let some of the activities aim especially at giving these people a broader and saner out-look upon life, and something that will help them to bear up more cheerfully under their regular daily routine, thus brightening both their own lives and the lives of those that must live and work with them.

Third, in the spring of the year get the City Council, Commercial Club, and Women's Club behind the movement to let the school boys and girls organize into teams to rid the city of its winter's accumulated waste. Get some of these organizations to finance the preparation of an evening banquet. To add a little extra interest to it let the various teams compete on the basis of doing the best piece of work or completing first. Let the honor team sit at the head of the table, with girls who made the highest grades in the year's work as the hostesses. This will add greatly to the interest of the work to be done.

Fourth, try to get supervised play organized for the summer. Here you have the assistance of the provision made by the Thirty-sixth General Assembly, which empowers cities or school boards to provide supervised playgrounds.

Fifth, encourage vacant lot cultivation, Boys' and Girls' Clubs, contests of every kind that make for clean boyhood and girlhood, and later manhood and womanhood.

Children as well as grown-ups like to feel that they have really done something and that it has been recognized; for this reason put these things on a constructive contest basis; get the business men and other organizations to offer prizes, and award the highest honor to the highest and greatest accomplishment. Recognize the innate fact in human nature that for the normal individual, whether child or adult, the ideal of life includes something to *be* and something to *do*. Also recognize the fact that the purpose of life is to be happy. Make it easy for the children to lead themselves into being something, doing something and being happy, the stepping stones to honorable citizenship and the highest well-being.

For the benefit of those who are trying or who expect to try something along this line permit me to call your attention to a few things to be remembered which may help some of you not to give up in despair.

1. There are three steps which lead to the final level of achievement in this line of work as in many other lines of work. These three steps are—talk, sentiment, and action. Between the first and second steps

there will always be much talk that falls upon ears that hear not, and as a consequence we have here a great horizontal leakage from the ranks. Between the second and third steps there will always flow a very swift current of the "I think the thing is all right but I will let the other fellow push it," which will result in the second great horizontal leakage. If, therefore, you are to get some action you must expect to have first invested large amounts of talk in order to create enough sentiment so that ample allowance may also be made for the second great leakage, that is certain to occur. There is no better place to turn loose the talk that is to manufacture this sentiment than at the social center and your various gatherings.

2. You must also be prepared to face the fact that novelty will attract the curious as well as the interested. Start something new and many will come only to see and fewer, perhaps, to help. Those who come merely to see may not put in their appearance at the second meeting. Here remember that the success of anything is always to be determined by taking into consideration both its characteristics, quantity and quality. Twelve persons who have come to help are worth many more than twelve times twelve who have come merely to see. Few machines do their best work until the paint is worn off of at least some of the parts.

Finally, when you think that you have taken all things into consideration you will probably still have some skidding on the road to success, but as the servant is worthy of his hire, so here, the world offers you as pay, "honor, position, fame, a useful life and a deathless name," things highly prized but never awarded before they are earned.

COSTUME APPRECIATION

MARY HENLEIGH BROWN AND LUCY D. TAYLOR

To make simple, genuine, aesthetic pleasure a coveted possibility to the vast number of people who, because they have neither desire nor power to do creative work, believe that they are not concerned with art, is of the utmost importance. On the discrimination and taste of the common people hang, not only added sources of individual happiness, but also the quality and vitality of our national art. The art that is rooted in common things, that is an expression of the thoughts, feelings, and desires of common life, is the art that lives, is the red blood art that finds a response in succeeding generations.

Comparatively few people will make the designs that we use in our every day surroundings; few have the type of imagination and the inclination to devote themselves to the rigorous training required to make such creation possible. But the lack of this creative impulse does not in any sense mean a lack of aesthetic interest. There are infinite possibilities for pleasure for those who like to surround themselves with beauty, even though they never touch pencil or brush to make a design. The liking, the sensitiveness to impression, may be strong; fostering and cultivating may bring it to the point of culture.

If the early crude interest in color and ornament is encouraged, and youth is taught to use them discreetly without being forced to undesired production, the unfortunate condition of self consciousness which expresses itself with more or less hypocrisy in the statement, "I don't know anything about art, but I know what I like," may be avoided and for it substituted an honest attitude of frank enjoyment which fits the training and opportunities. Better honestly to like the gaudy car poster which does tell its story and is a good advertisement, to have a real opinion about it, than to be embarrassed by what someone else will think of your opinion. The honest liking for bad design is a basis on which later refinement may be built, for it is an honestly felt reaction. The hypocritical attitude recognizes no basis of genuine feeling and leads nowhere. False standards lead to insincerity instead of to wholesome reactions.

Art education has two perfectly distinct functions. One is to train creators of beauty, the other is to train appreciators and users of beautiful products. In our schools, we are concerned primarily with the education of the appreciators, for the training of the creators is the train-

ing of specialists and naturally follows the former work; it is carried further, intensified, and given mature thought and direction.

This field of appreciation of beauty in common things is one of absorbing interest. Practical, sensible direction in selection of furniture and wall hangings, of costume and its ornamentation provide problems of unbelievable vitality and interest. The users of beauty need practical training in color and design that will give them power to select the color and pattern of the paper for a speical room, to choose the drapery that will soften the window frame without cutting off too much light or destroying the structural effect of the casing, and to provide the color accent that will best serve to make a unit of the whole interior. They need training that will help them in choosing furniture that is beautiful as well as strong and comfortable, and in arranging such accessories as lamps and bric-a-brac with an understanding of the need of unity and repose.

Such work can only be successful when the teaching methods are changed from those that fit the maker of designs to those that fit the selector of designs. Studio methods of teaching have no place in this selective process. Real materials must be seen and handled. Color schemes for rooms will have meaning only when the actual materials are used. To discuss color schemes verbally, supply the class with diagrams of rooms, and have these colored with water colors is not sufficient. Too much attention is concentrated on laying on washes, the five finger exercises of the design maker. The attention is on the making of the symbol, not on the concrete problem of the color. Again, the water color diagram seldom represents the actual problem—the texture, color, and design of the material to be used. The student is required to think in terms of generalities before she is even acquainted with the specific concrete possibilities.

The problem of the appreciator is in the store downtown where she looks over a confusing mass of wall papers, cannot make up her mind, describes the room more or less inaccurately to the salesman and takes his judgment, which too often is based on latest designs and style instead of taste. To train the taste of this practical searcher for home comfort who has absolutely no desire to draw, the papers must be brought to her, and she must be taught by contrast to discriminate and select those that will fit the conditions of her home. The draperies must be considered in their real form and not as water color washes.

She does not want to learn to represent them, she wants to learn to select and enjoy them.

In costume work, these users of beauty need the practical training that will teach them to choose costumes suitable in color, fabric, and durability for the individual characteristics and income. They need to become acquainted with their own color possibilities, learn to select styles that are suitable for their individual types of figure.

If choosing color schemes for these costumes is to have meaning it must be done with the actual samples, just as in the case of the wall papers. Painting a paper doll will not teach a girl to choose the particular color of silk to combine with the cloth of the dress. Such procedure is asking her to think in terms of a symbol that she cannot use freely before she has had sufficient experience in handling colors in fabrics to know what she is trying to make the symbol represent. She must have the fabrics themselves to see, she must try them on herself, she must study the real dress and the pattern book. And when she knows the facts, and has reached the stage of expression, her natural symbol is the written or spoken word, not the drawing. Of course, the choice of good color in her own costume is the final test of the value of the work.

The solving of all these problems lies within the scope of any person with a fair amount of sensitiveness to visual impressions, and a little careful guidance by one who has already travelled over the road. Surely there is no need here for the uninspired to struggle in making designs; aesthetic pleasure can be provided for those who have too often thought themselves "inartistic."

Obviously, a course in appreciation that is to give any practical results may employ totally different methods from those we have recognized as studio methods. The teacher must make her standards graphic, must explain them by innumerable illustrations, must give more in explanation herself until she has built up in the pupils a sufficient number of experiences for them to compare and contrast for themselves. Then their reactions should not be in terms of drawing, but must come in definite form in the use of materials, not in a representation of materials through learning a symbol for them. This power of discrimination will always be in excess of their power to create. They need from the design specialists more and better creations which they may use. They do not need to make representations.

Historic costumes are interesting, and their study down through the

years can be left to the specialist who needs that knowledge; but to the average woman, what value to her what the Greeks wore if she picks out from the current fashion book the dress that will make her look twice her natural size? Or if, in her search after the unusual, she combines a green blue chiffon with a purple blue silk, thereby killing the effect of both? Or if with a sallow complexion, she insists on wearing a purple dress which increases the sallowness.

It has been with these thoughts in mind that the writers have been experimenting with a course in Costume Appreciation in the Vocational School for Girls in Somerville, Mass.; not to design costume accessories but to learn to select the dress that is appropriate for the individual, the color that is suited to the individual complexion, and the pattern from the fashion book that can best be adapted to a particular type of figure. The material that is beautiful, the combination of colors and textures to give the desired effect, the proportion and line that must be followed to give the best appearance, these are the practical results which are the right of every woman to demand.

These cardinal points of good taste in costume have been embodied in a course which is proving of intense interest to the girls in this particular school. The work has been assembled in the form of a problem in planning a wardrobe for a given amount of money.

In the first series of lessons, the girls were told that they were to plan the clothes of a woman in moderate circumstances. The wardrobe was to last her for a year. They were to assume that the wardrobe was entirely new, that there were no left-over clothes from a preceding year. This stand was necessary in order to avoid ingenious excuses for extravagance. The different kinds of dresses were discussed from the standpoint of cost, appropriate materials, and style correct for the occasion. Every article of clothing was considered and the girls kept a record of the wardrobe list.

The next series of lessons centered around the selection of two of the working dresses, in this case, the morning dresses of washable material. The girls first chose the color suited to the complexion. They studied the different types of complexion in the class, tested a great many large samples with the different types, and as a result came to some very definite conclusions as to what people with certain color, hair, skin, and eyes, could wear. Then each girl, unaided by the teacher, selected samples and made individual notes upon colors suitable for herself. These proved to be of much interest and indicated very

conclusively that the method had been successful. Out of some 85 girls only two or three made a poor choice. Following the color lessons the materials were studied for their pattern beauty. This was done by means of discussion of a great many samples, good and bad, with gradual elimination of the poor ones, and ultimate selection of two good samples by each student. The cloth for the two working dresses could now be selected.

The next step to consider was how to make the dresses. This involved study of line and proportion and that in turn furnished the problem of types of figures. What could the stout woman wear satisfactorily, the thin woman, the medium sized woman, the short waisted woman? Accordingly, the teacher made large pasteboard dolls having these different types of figures, and dresses were made for the dolls which showed contrast of good and bad design in yokes, tucks, ways of making skirts and placing trimming. These were discussed in detail, and notes made on the different designs to use with each type of figure. The test for the efficacy of this instruction was given in two ways. First, by each girl choosing one or more styles from fashion books, pasting them in her note book, and suggesting such modifications of the selected patterns as would make them suitable for the different types of figures, of which she had small reproductions in the large dolls. Secondly, by each girl choosing the style for her own dress according to her own type of figure. This work was made more vital by the paper modelling of patterns carried on at the same time by the teacher of dressmaking.

The next costume, the afternoon frock, embodies three new points: what fabrics to put together, what colors to harmonize in different fabrics, and what proportional amounts of color to use. The ability to decide on the color qualities to be used together is none too common, and girls need much training in this kind of selection. Working with color charts did not seem the right approach; it was too indefinite and too general. It was decided that practice in matching and selecting from a large supply of samples was needed. Accordingly, different typical colors such as light blue, bright blue, and dark blue in various fabrics were gathered with the assistance of the textile teacher who also supplied correlated work on durability and prices. After deciding on the kind of material to be used for trimmings, the girls were given much practice in choosing the right quality of color in this chosen fabric. From these concrete experiences were assembled general prin-

ciples of color mixture regarding enhancing, neutralizing and modulating effects of different colors on each other. As a final test of the power gained, the girls selected samples of materials and combined them in a dress made for a doll. The material was simply cut out and pasted on the flat doll which had been supplied by the teacher. This, of course involved also the choice of proportion of different colors, and was treated by means of discussion of actual dresses, of colored plates, and large paper dolls dressed in fabrics. In this case the use of the paper doll has a real place, for the students looked at her only for color spotting. They did not have to draw the figure, as that was done by the teacher. Moreover by this time they had handled a sufficient number of fabrics, and enough fashion plates, for the symbol to have meaning. All of this involved repetition of the work given earlier in the course.

Work carried on in this way means much more for the teacher than by the ordinary methods. She must spend many hours gathering her samples, mounting them, making her large dolls and their dresses; and finally, in the class room, she must make herself such a guidebook of ways to look at patterns and colors that the girls easily follow her lead. The class criticism of the material must be preceded each time by her own analysis and explanation in terms that will make the girls see and feel what the lines are doing to their eyes. To sit back and ask these children why one design appeals to them more than another is quite useless. Better to take one good design, point out the elements that make it pleasing, and contrast it with one from which such a reaction is impossible. By the time that the teacher has done this with three or four designs some kind of standard has been established and the girls are ready to look at the new designs to see if they can find some of these same pleasing elements.

This course can be extended easily to meet the needs of upper grammar and high school pupils who are not interested in drawing. It is planned primarily for the purpose of bringing enriched aesthetic experiences within the reach of the many people to whom the manual operations of drawing are of little interest.

A CONTEST AND THE TALES IT TOLD

ANNA MERRITT EAST

New Housekeeping Editor of the Ladies' Home Journal

"The best argument against woman's suffrage is the woman's page in the daily newspapers," brought me up with a start one day in New York and immediately I set out on a new tour—this time among the women's pages and home departments of newspapers and magazines. What did I find? Many interesting things and many astonishing "facts," such as "put the milk on in a double boiler and *boil*," "all tea and tablespoons are rounding measurements;" "raisins are a fair substitute for meat, they are rich in sugar, and, considering the value they possess, they are one of the cheapest articles on the bill of fare;" "oysters are fat and very nutritious."

Then I asked the question, "Why are not women trained in Home Economics doing more of this writing?" "Why don't you try your hand at it?" Sometime afterwards, I was called to take up my present work, and had the opportunity of arranging a contest, in order to see whether the technically trained domestic science student or worker was really interested in this particular use of her training—to aid those not so fortunate as herself in having had the time and opportunity to devote to the mastery of both the theory and practice of household problems. In fine print on a back column of the November *Ladies' Home Journal* was announced this contest offering prizes for articles under three hundred words on the following topics: A Happier Method of Accomplishing an Old Household Task; A Household Superstition From Which I've Gained My Freedom; A Discovery I've Made in Food Preparation; My Suggestions for Improving Domestic Science Instruction.

Although *Ladies' Home Journal* contests usually bring in responses by the thousands, this, because of its technical limitations, brought in but three hundred and thirty-four articles. However, when those for which we had room had been edited, they brought forth the following interesting comment from our editor, Mr. Bok: "I don't pretend to know whether these 'discoveries' will hold water, but if they are all O. K. from a practical point of view, they certainly sound all right from a journalistic standpoint. It seems to me to be good stuff." This being true of about 50 per cent of the material submitted, it points out another great field of work for our girls who are taking Home Economics courses, for it is a

field that has been scarcely scratched on the surface by writers who have also a technical background.

Of the three hundred and thirty-four articles received, forty-three came from the Iowa State Agricultural College at Ames, where the Home Economics Division and the Department of Journalism had both recognized the need of getting together by giving a course in journalism to Home Economics girls. Only six girls had registered for this work last fall, but when the *Journal* contest notice came out, Professor O'Brien said: "Now is our opportunity to get some of our articles into a big magazine where unknown writers usually have but little chance." (Not true, however, for here, as elsewhere, we are always on the lookout for a new writer who can produce effective copy.) So, for the four or five weeks before the closing of the semester, this class devoted its time entirely to *Ladies' Home Journal* stories, and Ames gained the distinction of handing in as many article as any three schools together and carrying off six of the prizes. This is interesting, but the vital thing was what came out of it, for forty-five girls registered for this course in the second semester, and two are now regularly contributing to local papers.

Teachers College, Columbia University, came next in the number submitted—twenty-two—and carried off seven prizes; again a school where there is active coöperation between the household arts and English instructors, and where at least one of the household arts instructors made a class-room problem of the contest subjects.

The following are the schools which took the most active part:

SCHOOL	NUMBER SENT	NUMBER PRIZES
Iowa State College	43	6
Teachers' College	22	7
University of Chicago	11	2
University of Wisconsin	10	
Drexel Institute	8	3
Drake University	7	
Pratt Institute	6	2
Kansas Agricultural College	6	3
Illinois State Normal	6	
University of California	5	2
High Schools	30	4

The time is ripe for the more definite training of popular writers on our Home Economics problems. Do we not owe it to the public to give them facts that *are* facts?

A HOME ECONOMICS EXHIBIT

ALICE McCONE

On December 3 the Home Economics Club of Montana State College at Bozeman fittingly honored the birthday of Ellen H. Richards by giving an exhibit of antiques, including jewelry, china, needlework, lace, samplers, wearing apparel and war relics. We had on display, near the entrance, Ellen H. Richards' picture and many of her books. A member of our club told the guests the purpose of the exhibit and something of the life and work of Mrs. Richards.

The women of Bozeman very kindly lent us their most cherished antiques. Exhibits from various parts of the state were sent, in response to the notices sent to the newspapers. One woman sent a collection of rare old china which dated back almost two hundred years and also a hand-woven coverlid with the date 1672 woven in the corner.

The hand-woven coverlids were exceptionally fine, almost all of them having been made during early national times. There were caps of fine colonial needlework, in which the tiny tucks were wonderful. Head coverings of various styles and periods, from the tiny hats to the calash, were among our collection. Of the many queer umbrellas sent, one, a square one, was more than one-hundred years old.

There were some daguerreotypes over fifty years old and an old account book, the exact age unknown, containing the record of a purchase dated 1715.

We put the dresses on a number of dress forms and they illustrated styles from the colonial period until the present. The wedding garments of several great-great-grandmothers attracted much attention. We had several pairs of wedding slippers and one shoe about one hundred and twenty years old.

Some of the club members were dressed as Puritan maids. One maid dipped candles, another wove a rug and another carded wool. To defray the expenses of the exhibit, we served tea and wafers to the visitors.

THE TEACHING OF TEXTILES IN ELEMENTARY SCHOOLS[1]

KATHARINE FRENCH STEIGER

Supervisor of Domestic Arts, Public Schools, Rochester, N. Y.

The teacher of household arts has never before had such an opportunity as now presents itself in our great cities and in rural communities, if she can free herself from her own preconceived ideas and throw into the waste basket the course of study that was useful in its day but is no longer worth while.

I quote from Miss Kinne, professor of household arts education, Columbia University. The same might be said not only of the household arts teacher but of every teacher, academic, special or grade, who has to deal with the girl. The problem is here—the girl is here—the opportunity is here. The industrial awakening and the necessary adjustment of courses of study call for coöperation on the part of the grade teacher as never before. Colleges and secondary schools have done much within recent years along the line of household arts—but colleges and secondary schools, no matter how excellent their curricula, how complete their equipment, or how strong the teaching force, cannot reach the vast number who through mental limitations or financial stress never get within their doors.

It is claimed that 90 per cent of our school population will support themselves by work of hand while only 10 per cent will go to college. Of those entering the high school only 25 per cent remain to graduate while 50 per cent of the children enrolled in the elementary schools drift out into the world before completing the sixth year of instruction. In a city in New York state, one school alone registers one hundred and twenty-three girls from one to five years below the grade requirements. Similar conditions exist in other schools, other cities and other communities. This class of pupils the secondary schools seldom reach, and with those that are reached the work is handicapped unless the graded schools furnish a substantial foundation of rudimentary experiences for the more advanced courses of the high school and college later on. Here is a rich opportunity for the teacher of elementary subjects. "Down from the kindergarten to the college," as one educator aptly expresses it.

State Superintendent Draper once said, "We must teach each child a

[1] Presented at the Eighth Annual Meeting of the American Home Economics Association, Seattle, 1915.

few *definite things well* no matter at what age she may leave us." To teach a few definite things well a good foundation is necessary. Needle work in the grades is not a technical drill in stitches only, but a course of well defined, carefully thought out fundamental principles. When the great Cathedral of St. John the Divine was planned tons of cement were poured into the fissures of its rocky foundation. This was necessary in order to insure the permanence of the superstructure. Are we as teachers and directors of household arts using enough educational cement to guarantee that there will be no social and economic fissures in our domestic structure? The girl who leaves us must know not only how to sew by hand and by machine, but how to plan, what to buy and what not to buy. As soon as she begins to make an article for actual use or a real garment her attention should be called to the nature of the material handled, its name, its desirability, its suitability and its cost. So long as the needle exercise in the grades is limited largely to the drill in stitches, the worker taking little or no part in the selection of materials, so long is the domestic arts structure lacking in educational foundation.

In the elementary school textile discussions or a few simple practical tests can be made a part of each sewing lesson. These will require about five minutes. If the children have provided their own materials as they always do in the Rochester schools, a comparison of the textiles purchased is a good beginning. To distinguish the chief characteristics of cotton, linen, wool and silk manufactures, the clothing worn by teacher and pupils will be a sufficient equipment for one day's lesson. Their ribbons, ginghams, lawns, linen and cotton suitings, coats, collars and neckwear can all be examined briefly. The laundering of delicate fabrics, the detection of fast and fugitive colors, the effects of sunlight and alkali soaps can be tested easily in the school room or cooking center by means of small pieces of dress stuffs. The selection of a pattern for a school dress can be made in the class room also—small sheets illustrating desirable styles are furnished gratuitously in all department stores. By means of these sheets the planning of a girl's dress and an estimate of its entire cost is within the power of the average pupil. Farther on, the necessity for sponging cloths, variations in shrinkage and the dangers of gasoline and other dry cleansers can be made an important part of one term's instruction. In case the girl goes no farther than the sixth year, there should be included in her work the simple forms of experimentation which will prepare her for action when she is confronted with

similar problems of purchase later on in life. She should know a few definite practical things well and how to spend her money wisely as one of them.

For this type of girl the advanced physical and chemical tests of the college would mean little. She is not even ready for careful microscopic work and will probably never possess a microscope to use when one is needed. If, however, these simple exercises of the grades have trained observation and quickened judgment, an excellent foundation has been laid for future microscopic, physical and chemical tests should she be fortunate enough to have access to textile courses in schools of secondary rank later on.

In outlining a textile course for the elementary school I am not unmindful of the serious handicaps which confront the grade teacher and the supervisor in every well-organized school system—the crowded curriculum, the limited allotment of time, the many unlooked for interruptions, the shifting of pupils, and the over-large class. While the best a teacher of the grades can do is only a feeble attempt at what might be done under more favorable conditions, I believe that merely breaking ground for future habits of careful thinking and planning is well worth while. The girl should know a few definite things about her clothing, no matter at what age she may leave us to drift into business life, or into a home where there is no time for enlightenment even if the tired mother be competent to furnish it.

Before submitting the textile course used in the Rochester schools I should like to sum up briefly the points made.

a. Every girl before leaving the public schools should have some acquaintance with the textile materials which she has used in the sewing exercises.

b. If she attempts to make her clothing this knowledge will help her to buy wisely; if she purchases the ready-made garment, such knowledge is even more essential.

c. The large percentage of girls who drift from school into the industries below the sixth grade have no way to secure a textile training except through the graded school.

d. A practical knowledge of textile values can be given this class of girls by the grade teacher in connection with the sewing lesson. The more advanced physical and chemical tests which belong properly to the college and the secondary school need this foundation.

e. We cannot buy taste and judgment, but to a certain extent they may be developed by training.

f. The small amount of time allotted for the sewing exercise need not be a serious burden as the textile drill requires only a few minutes of each lesson.

g. From its beginning the domestic arts course should emphasize fundamental principles rather than stitches.

PLAN OF THE DOMESTIC ARTS WORK IN THE ELEMENTARY SCHOOLS OF ROCHESTER, N. Y.

A school year consists of 40 weeks.

Extending from the fifth through the eighth year sewing is taught two and one-half years and cooking one and one-half years.

The average time for each lesson is one and one-quarter hours per week.

Twenty-eight weeks per year are allowed for plain needlework.

Ten lessons per year aim to train the taste through an exercise in applied design, each pupil making one design.

Two periods during the year are sufficient for the preparation of the textile chart. This chart is intended to fix the knowledge gained through class discussions, language lessons, and written notes in connection with the sewing done. Language lessons and written notes are a part of the general class work.

Study of materials

Grade 5-B. Samples of cotton, linen, wool or silk, also price.
Grade 5-A. Samples of materials, suitable for children's garments.
Grade 6-B. Samples of colored fabrics washed and unwashed.
Grade 7-B. Materials suitable for a school dress, also entire cost.
Grade 8-B. Shrinkage of fabrics, and related problems.

For the chart exercises the backs of discarded drawing pads are used as a foundation. After a class discussion, pupils paste their cloth pieces, raw materials and any necessary statements relating to cost, width, special name, etc., upon this card. For instance, pupils in grade 5-B are learning to distinguish cottons, linens, woolens and silks at sight. They begin by observing the materials used in their own clothing and that of the teacher. Cottons and woolens are used for school

dresses rather than linens and silks—why? Silk is used for hair ribbons—why? Linen for collars, cuffs and shirt fronts—why? The danger of using outing flannel for children's clothing—why? The difference in cost of the four textile materials—why? After this training through observation and discussion, the materials brought from home are used in making a chart. This chart has no use except as a concrete evidence that the child understands.

Grade 5-A goes one step further and considers the characteristics of each textile used—advantages and disadvantages of cottons and woolens, linens and silks—What makes cotton goods desirable in a sick room, linen for the table and so on.

Pupils of Grade 7-B make use of the free fashion sheets to select a style of dress suitable for school use. This is pasted on a card, with sample of the materials needed, and a bill showing quantity and cost.

In grade 8-B the materials used in making a piece of underwear are considered from the standpoint of durability, suitability and cost. Here emphasis is placed on shrinkage, the advantages of white linen tape over lingerie ribbons, and the need of care in selecting lace and beading.

The effects of very hot water and soap on woolens are also tested.

INEXPENSIVE RESTAURANTS IN CHRISTIANA AND IN VIENNA, AND A SHOP-GIRLS' RESTAURANT IN COPENHAGEN

COMPILED BY HELEN W. ATWATER

U. S. Department of Agriculture

One of the English reviews[1] contains an interesting article by Edith Sellers, with the title "Experimenting in Cheap Catering," which describes two low-priced restaurants or food shops, one in Christiana and one in Vienna. The Norwegian establishment has been gradually developed since 1857, when a group of business men started a restaurant to provide wholesome food for laboring people at a price which should pay the total cost of buying, preparing, and serving the food plus a rea-

[1] *Nineteenth Cent. and After*, 76 (1914), No. 453 (Nov.), pp. 1123–1137.

sonable return on the capital invested. It was not a success until a department was introduced for the sale of food, both raw and cooked, to be consumed at home. This made possible the purchase of all supplies at wholesale rates. Since then the patronage has steadily increased until over 1500 persons get their dinners there, 700 go to the cooked-food department and several hundred others take minor meals in the café or purchase uncooked provisions. These numbers are especially significant as Christiana has a population of only 24,000.

The restaurant serves three types of meals in separate rooms. *Table d'hôte* dinners are served at noon in the dining room at 13.5 cents and at 9 cents according to the combination of dishes, the portions in either case being ample. The café and the lunchroom are open from 8 a.m. to 10 p.m., and in them the service is *à la carte*. The quality of the food and service and the prices in the café are slightly below those in the lunchrooms, though in both they are wholesome and clean.

The People's Kitchens in Vienna have been in operation since 1872, and have served as the models of the Alexandra Trust Dining Rooms in London, and similar organizations elsewhere. They now operate restaurants and food shops all over Vienna and serve low-priced, well prepared meals to 22,000 persons daily, besides providing 5420 lunches for school children and selling food to several thousands who eat at home.

They serve two *table d'hôte* dinners, one at 14 cents and one at 10 cents. The two consist of the same quality of food; the more expensive one including a basin of soup with thick slices of bread and a large plate of hot veal, mutton, beef, or pork, with vegetables; the less expensive one consists of one course only, shepherd's pie, Irish stew, fish, sausage, or something of that kind. Both dinners are said to be as abundant as any "big, strong hand worker" could eat.

Menus and Price lists from People's Kitchens, Vienna

	Cents
Clear soup	$1\frac{1}{5}$
Spinach	$1\frac{3}{5}$
Beef with spinach	$6\frac{2}{5}$ or $3\frac{3}{5}$
Venison with macaroni	$6\frac{2}{5}$ or $3\frac{3}{5}$
Fruit pudding	$3\frac{1}{5}$
Vegetable soup	$1\frac{1}{5}$
Peas	$1\frac{3}{5}$
Beef with peas	$6\frac{2}{5}$ or $3\frac{3}{5}$
Pork cutlets with salad	$6\frac{2}{5}$ or $3\frac{3}{5}$
Ginger pudding	$3\frac{1}{5}$

The business, which is entirely self-supporting though managed by a philanthropic association, is so organized that it can at short notice cater to 10,000 more than the regular patrons. The association is called on in emergencies, such as inundations, epidemics or other disasters in any part of the country, to take charge of the feeding of the district affected and is able to respond immediately to such demands.

In another article[2] published about the same time, Miss Sellers gives a very brief account of a shop-girls' restaurant in Copenhagen. The establishment described is in the heart of the business center of the city and it serves low-priced meals to from 1200 to 1800 shop girls, besides selling some cooked food. It occupies two floors of a large building, the lower devoted to *à la carte* service and the upper to *table d'hôte* dinners. Each floor contains also sitting and dressing rooms where the patrons may rest, read, or sew. The rooms are all attractively furnished and the friendly atmosphere is further encouraged by the matrons who supervise each room. The waitresses are young women of good breeding. Men are not allowed in the lunchroom but may be brought to the dining room as guests of women patrons, a form of hospitality said to be very popular. The proceeds are sufficient to cover all expenses, including rent and reasonable returns to the two women who have been entirely responsible for the management, but they do not allow of further profits.

Bill of fare, Copenhagen, April 6

	Cents
½ roast ptarmigan with baked potatoes	15
Boiled chicken with mashed potatoes	15
Boiled or fried plaice	13
Veal cutlet	15
Game patties	11
Braised calf's head with vegetables	10
Boiled veal	10
Beef balls with celery sauce	8
Leeks with whipped butter	7
Bouillon with egg	7
Bouillon without egg	4
Rhubarb porridge with cream	6
Apple porridge with cream	6
Rice with stewed cranberries and cream	4
Wine jelly with custard	4
Oatmeal porridge with milk or fruit	6
Oatmeal soup with milk or fruit	4
2 fried eggs with bread and butter	10
Cold meat, smoked salmon, sliced eggs, etc, with bread and butter	11

[2] *Cornhill Mag.*, n. ser. 37 (1914), No. 221 (Nov.), pp. 656–665.

To what extent the war which broke out soon after Miss Sellers' articles were written has affected these successful efforts at low-priced catering, it is impossible to say, but it seems probable that in times of such unprecedented social and financial strain as all the nations referred to are going through, any establishment which is organized to provide good food in a truly economical way would prove exceptionally valuable. Since the Viennese Kitchen had previously done emergency work, they have in all probability also done their share in the special war relief of which Austria has had so much.

THE FUNDAMENTAL BASIS OF NUTRITION

A third printing of this book[1] offers an opportunity that we are glad to embrace to call it to the special attention of those who wish to obtain in brief form an authoritative statement on the subjects included.

The book gives a short historical review of the growth of knowledge regarding nutrition and presents the subject of nutrition from the standpoint of the fuel and protein needs of the body. In this connection attention is given to dietary habits in different countries and to the deficiency disease, beri-beri. Much information is given concerning the monetary value of foods.

Information is summarized regarding the basal heat production of the body and the increases in this due to the ingestion of food, sitting up, walking, and exercising vigorously, as determined by calorimetric measurements, and the author discusses the food requirements of the body under different conditions as indicated by its heat production.

As regards the protein needs of the body emphasis is laid on the relative physiological value of the different proteins with especial reference to the amino acids which they supply to the body. Thus the amino acids necessary to build new body proteins are present in the proteins of meat, milk, eggs, and fish, but are absent in proteins like gelatin or zein. It is also stated that "when the units are in a very different ratio to one another

[1] *The Fundamental Basis of Nutrition.* G. Lusk, New Haven, Conn.: Yale University Press, 1914, pp. 62. Reprinted 1914 and 1915. Price $0.50.

from that in which they exist in body protein, they must be of inferior nutritive value, since large quantities must be broken up in order to yield that quantity of certain units necessary for the construction of animal protein. Such inferior proteins occur among the plants. Plant proteins are eaten by the ox and are reconstructed into beef proteins, with the oxidative elimination of the excess of chemical units which are unnecessary for the structure of the animal cell. In this way beef protein attains a higher biological value for the nutrition of man than is possessed by vegetable proteins." Owing to differences in their amino acid make-up the amount of different proteins which must be eaten to protect the body from protein loss varies; about 30 grams of meat or milk protein and as much as 76 grams of bread protein or 102 grams of Indian corn protein being required.

The author calls attention to the power of protein to increase greatly the heat production of the body by stimulation, stating among other things that "individuals maintained on a low protein diet may suffer intensely from the cold. A good piece of beefsteak or roast beef will put the heat production on a higher level, and a person going out of doors on a cold day after a meal high in protein does not feel the cold. For the same reason, on a hot summer day, meat will be avoided."

One chapter is devoted to the diversity of dietary habits in different parts of the world, attention being called to the diet of the Eskimo, which at times contains as much as 9 pounds of meat per person daily, the low protein diets of the inhabitants of India, China, Japan, and the Philippines, and the standard European diet of Voit.

The author emphasizes the importance of considering the cost of foods in relation to their nutritive value and much information is given regarding the cost of nutrients as furnished by different food materials and in the final chapter data collected by F. C. Gephart regarding the cost and nutritive value of the portions of various foods sold from the counter of a well-known chain system of restaurants in New York and other cities are included which serve to emphasize the extreme variability of the purchasing power of money when expended for food. In general, the author proposes that foods should be sold on the basis of their energy value and of the proportion of the total energy contributed by proteins. "The proteins of the foodstuffs should be labeled A, B, and C according to their physiological value, and to group D might belong gelatin and some other proteins which can not replace the body protein that is continually wearing away." The relative value of different

proteins, as determined by the products which they yield on hydrolysis, as well as other recent work on the nature and functions of protein, are discussed.

As the author points out, "since the efficiency of labor depends upon its [i. e. of the body] energy and constant repair, it is certainly of no small moment that the citizen should know how best to maintain the machine at a maximum of efficiency. Not only that, but in times of trouble he should know where to turn to find nourishment in the form which is best and cheapest. . . . If, through the medium of the schools and the press, everyone knew that a man of sedentary occupation required 2500 calories and a laboring man 3000 calories and more, no one suffering from want would spend his money for a can of tomatoes which is little else than flavored water.

"It has been estimated that a family of 5, including the father, a clerk, the mother who does the housework, and 3 children, 9 and 6 years and 1 month old, respectively, requires 7750 calories per day." Data are presented showing the cost of a diet sufficient to supply this energy, 5 per cent of the total coming from animal proteins of grade A and 10 per cent from vegetable proteins of grade C (bread). The necessary protein to supplement the bread would be supplied by four-fifths pound salt codfish, three-fifths pound smoked ham, four-fifths pound cheese, two and one-half pounds milk, one and one-half pounds loin pork, one and one-third pounds of mutton, one and one-fourth pounds cod steak (fresh), one and one-third pounds sirloin beef, or one and one-half pounds turkey. According to the prices of foods in the New York markets January 28, 1913, the cost of the ration would vary from 47 cents with bread and salt codfish to 78 cents with bread and turkey.

"If corn meal, oatmeal, dried beans or rice had been used instead of bread, these prices would have been lower, whereas potatoes would have slightly increased them.

"These figures are for the great staples of diet. . . . It is obvious that when more than an average of 8 cents is expended for 1000 calories of nutriment, the diet must include luxuries."

The author estimates that three servants will double and six servants treble the food bill given above. "Whatever is spent above these amounts is paid for waste or for nonessentials in the form of flavors of high price. High cost may also be due to carnivorous indulgence approximating that of the Eskimo. . . . It is not probable that the food values actually consumed are very different in the various well-nourished families. Only the cost can vary enormously."

PASTEURIZATION AS A PUBLIC HEALTH MEASURE

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Foods of animal origin that are consumed in the raw state must be reckoned among the important distributors of disease. Whatever the art of cooking may contribute to flavor and digestibility of foods, it is preeminently a health measure. Prof. William T. Sedgwick goes so far as to say that "probably the greatest sanitary step ever taken was the application of high temperatures to the preparation of food." When we consider that the primary source of disease germs is the animal body, chiefly the human body, it is not difficult for us to picture the way in which germs travel from person to person within or upon the unsterilized vehicle, food. It is true that many of the bacteria will survive prolonged heating at cooking temperatures, but, fortunately, almost none of the pathogenic organisms exhibit such resistance.

Milk was certainly intended by nature to be consumed in the raw state, but in the natural order of things the source of supply and the consumer were very close together. Nothing can ever rival breast-fed milk as a perfect pure food for infants. As man has commercialized cow's milk, however, the pure comparatively germ-free product becomes exposed to all sorts of contaminations. The market has been driven further and further from the source of supply, and the number of persons coming in contact with the milk, the different containers it must pass through, and the time consumed in its transportation have all contributed to its germ content potential disease germs, and have made it a very questionable food product, especially in large cities.

Picture, for example, the difficulties involved in protecting a supply like that of New York City; literally a vast river of 2,000,000 quarts of milk, coming from a radius of 400 miles, arising from 44,000 sources situated in seven different states, flowing into a number of huge reservoirs which serve as the centers of distribution within the city. Constant supervision of such an area is almost impossible.

It is impractical to try to estimate how many people are employed in handling this supply, but it is certainly in the hundreds of thousands. One person in every three or four hundred of the average population suffers each year from typhoid fever, and so each year it is highly probable that some of this supply comes in contact with incipient cases of this disease. Add to this danger the more serious menace from the

typhoid germ "carrier," i.e., the healthy, unsuspecting harbinger of the disease germ, and we begin to realize why we so frequently see accounts of milk-borne epidemics of typhoid fever in the newspapers.

The danger from tuberculosis is twofold; the cow, as well as man, is a source of tubercle bacilli. The former will in time be effectively controlled by eliminating the tuberculous cattle, but it is more difficult to protect against infection by human beings.

Other diseases that may be transmitted by milk are diphtheria, scarlet fever, epidemic sore throat, and various intestinal disorders of infants and children. The above list is not complete, and if we could take the space to give some figures on the amount of sickness and death caused by the drinking of raw milk, no one would doubt the potential danger lurking in the opaque and apparently pure fluid. Thanks to the advancement of science, the day of unheated milk as a food product in America is rapidly passing.

It was about 1870 that Louis Pasteur, studying the causes of deterioration of wines and beers, discovered that the cause of these "diseases" was living microorganisms, and showed that they might be destroyed by subjecting the liquors to the temperatures of 158° F. to 176° F. for a few minutes. The process was called "pasteurization" for the great man who originated it. The term now usually refers to the practice of partially sterilizing milk by heating it to temperatures well below the boiling point of water, and cooling it rapidly to 50° F. or lower.

The application to milk was first tried in Denmark to improve the flavor of butter and to prevent tuberculosis developing in calves to whom the skimmed milk was fed. It was next employed secretly by dealers to enhance the keeping qualities of milk. It was looked upon with disfavor by health officials who believed that it was simply a way of concealing careless production and handling.

With the growth of knowledge of the sources and modes of infection, and expecially of the role of milk, a few sanitarians advocated pasteurization as a public health measure to be applied to large city supplies, and, although they met with serious opposition which came, curiously enough, from the medical profession, today the practice is so well recognized that we find it used as an advertising asset by many milk companies, and official regulation is requiring the heating of all milk except the very highest grades. In New York City 99 per cent of the entire supply is pasteurized, a condition the more remarkable since five years ago only 7 per cent was heated. In 1913 the amount had risen to 75 per cent of the total. In 1913, 80 per cent of Boston's daily supply of

390,000 quarts was pasteurized, and similar figures might be quoted for many other large American cities.

This progress has not been made without serious opposition and does not go unchallenged even today. Physicians claimed that heated milk caused rickets and scurvy. Perhaps the final word has not been said on this point, but the evidence does not support the charge. Rickets seems to be a disease of defective alimentation, while scurvy is remedied by giving with the food the juice of fruits, as orange or pineapple. The claim that malnutrition follows the use of this food by infants and children lacks evidence unless we take occasional exceptional instances.

Pasteurized milk is recommended today by most pediatrists especially in the summer time, and we find that most of the milk dispensed at the baby milk stations is heated milk. Nathan Straus began distributing pasteurized milk to babies in New York City in 1893. The first year only 34,000 bottles were distributed, while in 1906 the amount had risen to 3,140,252 bottles. The results more than justified the experiment, and now the gospel of safe heated milk versus questionable raw milk has spread through the land.

A comparison of what baby will do on the two kinds of milk is given by Mr. George M. Oyster who has distributed milk in Washington, D. C. under careful medical advice. There were three groups of babies; one using raw milk, one pasteurized milk, and a third using pasteurized and raw milk intermittently. In the first group of 351 babies, a net gain in weight per baby per day of 0.4030 ounce was shown. The 557 babies using pasteurized milk gained in weight an average of 0.4077 ounce, showing an excess over the first group of 0.0047 ounce per baby per day. The third group used raw milk part of the time and pasteurized milk part of the time. All the other factors remained the same. While on raw milk each baby gained 0.4312 ounce, and during the time they used heated milk, gained 0.4607 ounce per day, or an excess in favor of the pasteurized milk diet of 0.0295 ounce per baby per day.

Some other interesting data on the relative merits of raw as compared with heated milk for children is found in the case of the death rates in New York among young children in the city's care. The milk used throughout came from a selected herd. During the three years 1895–1897, 1509 deaths occurred among 3609 children while using raw milk, or 41.8 per cent died. With no other change except the introduction of pasteurized milk, between 1898 and 1904, 1349 deaths occurred among 6200 children, or 21.75 per cent died. These figures speak eloquently for the use of pasteurized milk for babies and children.

Much of the opposition to the practise of pasteurization has arisen because of the results obtained by the early workers using considerably higher temperatures than are now known to be necessary. Boiling milk, or even heating it to 160° F. or above, will affect the physical and chemical properties of milk detrimentally, destroying the cream line (the chief asset the purchaser demands), scorching the milk sugar, altering the casein and albumins, and precipitating various salts. Such changes impart a cooked taste to milk and may make it less digestible or perhaps may remove or render unavailable certain essential accessory substances. The evidence in regard to the value of boiled versus raw milk in infant feeding is still inconclusive, although we have apparently overemphasized the importance of the changes induced by high temperatures.[1] It is not necessary to use such high temperatures to obtain the desired result, nor is it recommended.

Another objection, and perhaps the most important one, has been that heated milk will subsequently putrefy instead of undergoing the normal souring process. The putrifying bacteria are, as a group, more resistant than are the lactic acid bacteria, but still they do not all succumb, as was supposed, to pasteurizing temperatures. Very exhaustive studies by the United States Department of Agriculture,[2] have shown that milk properly pasteurized will go through exactly the same series of changes that high grade raw milk will undergo. When heated to 145° F. for thirty minutes, 98–99 per cent of all the bacteria will be killed. The minority left will be representatives of a great variety of different kinds of bacteria, including some of the acid-producing varieties which flourish in the milk if it becomes warm. Absolutely no disease producing bacteria that could find access to milk can resist this temperature for this period of time.

The claim has been made by some from the outset that pasteurization will become a substitute measure for cleanliness, and that all our campaign for clean milk will go for naught. If this were true, it would be sufficient reason for abating the practise, but it is not the claim of the pasteurization advocates that it is a substitute for cleanliness, but that it is an extra safe-guard. Dirty milk cannot be made clean by heating, even though it can be made safe, and no one has a relish for barn yard

[1] U. S. Dept. of Agr. Bur. Animal Indus. Bul. 126.

[2] Lane–Claypon. Report to Local Gov't Board of London, vols. 76–80.
N. S. Davis. Food in Health and Disease, p. 75.
J. H. Castle. Hygienic Laboratory Bul. 56, p. 332.
McCollum and Davis. Jour. Biol. Chem. (1915), p. 233 and pp. 249–251.

dirt, even if sterilized. The practise has been likened to our present methods of providing safe water. Everything possible is done to protect the watershed from pollution, but since this measure is imperfect, the water is filtered or treated before it goes to the consumer. The supervision of the "milk shed" is of necessity imperfect, and so a safety guard is imposed.

Our measures of supervision should be extended rather than relaxed, and should cover not only the source of production, but also the efficiency of pasteurization, for it is a scientific process that cannot be left to individual caprice.

There are three general methods of pasteurization; the flash process, the holder process, and heating in the bottle. In the former method, the milk runs into a container and is rapidly heated to a high temperature, about 178° F. usually, by coming in contact with a hot water jacket or with coiled pipes heated by water. It remains at this temperature for only a brief period, and is then withdrawn and rapidly cooled and aerated by running over cold pipes. This method is not as efficient nor as reliable as is the holder process.

In the holder method the milk is first clarified by filtration and centrifugalization, and then it runs into the heating tank where it reaches the desired temperature—140° to 158° F.—and from there it flows into the holding tank where it remains for a time, depending upon the degree of heat used. At least three minutes is recommended for the highest temperature, and thirty minutes for the lowest. The usual temperature is 145° F. for from twenty to thirty minutes. In large plants, the time of holding is controlled automatically, and the milk then flows back toward the source of raw milk where it flows around pipes containing the incoming cold raw milk. The hot milk is cooled and the cold milk is warmed, and so a great economy for the producer is effected. When cooled and aerated, the milk is bottled automatically, and is capped by a machine, so that it never comes in contact with the operators, except for inspection of the caps, which occasionally are improperly sealed.

Pasteurization in the receptacle for delivery approximates a perfect method. In this case the milk is bottled and sealed with a special tight cap. It is then put in a special chamber and a thermometer recording automatically on a disc is inserted into the middle of one of the bottles so that the temperature of the milk and not of the chamber is taken. The milk is gradually heated to the desired temperature by an increas-

ingly hot shower of water or by other means, is held for the proper time, cooled in the container, and then iced ready for shipment.

Many modifications of the above described methods exist, and the apparatus is constantly being perfected. The prime requisites are always the same: To heat the milk rapidly to the desired point; to provide for maintaining this temperature; to chill promptly; and to avoid to the greatest degree possible, the handling of the milk or the bottles after being heated.

A discussion of pasteurization would be incomplete unless mention were made of the economic aspect. Besides being a public health measure it is a food conservation measure, as it postpones deterioration of a valuable food product by reducing enormously the initial numbers of the acidifying and decomposition organisms. Pasteurized milk will remain pure and wholesome for a long time if it is kept constantly chilled, and so it results in a saving to producer and to householder.

On the other hand, it costs money to install and to operate a pasteurization plant as well as to maintain a good quality of milk coming to the plant. Pasteurized milk costs more, but the extra expense is more than compensated by reduction of the doctor's and the undertaker's bill. The farmer is complaining today because he does not make a living out of a dairy herd, but it is not, as many people think, because the distributor is taking all the profits. "Public health is purchasable," within certain limits and we, the public, must pay an extra cent here and there to have it guaranteed us.

The practice of pasteurization has passed the experimental stage and is here to stay as a part of our new sanitary enlightenment. It is not an attempt to mask dirt in milk. It is good food for babies who cannot have breast milk, and for children; it is economy to buy it and to save in doctors' fees; and finally it makes clean milk a safe food.

FOR THE HOMEMAKER

FOOD SELECTION FOR RATIONAL AND ECONOMICAL LIVING

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The following is part of a paper given by Dr. Langworthy at the meetings of the American Association for the Advancement of Science in Columbus, Ohio, 1916, and later published in the *Scientific Monthly* for March, 1916. With the permission of the *Monthly* the JOURNAL is including the whole article among its reprints. We hope that not only housekeepers but teachers as well may be so interested in the extracts given here that they will send to the JOURNAL for the whole article.—THE EDITOR.

There are a number of factors which should be taken into account when one discusses diet with reference to its adequacy and economy and to the satisfaction which it gives. Among these are a knowledge of local markets and standards of food quality; wise selection of food; preparation and cookery; and the planning of meals, or, as it is so commonly called, "menu-making."

By a knowledge of markets is meant not only knowledge of the location of butchers, grocers and other dealers in food in one's neighborhood or town, but also a good idea of the reliability of the different dealers, the quality of the goods which they offer, the relation of the cash or credit systems of selling to their prices, and other such things. To be complete it should also include some understanding of the production and distribution of food materials; such information, for instance, as would lead the housekeeper to purchase local-grown goods when possible, not only because they may be fresher, but also because of the difference in their favor of transportation charges and hence of price. With respect to the quality of foods, the housekeeper should know, for instance, how to distinguish old and young poultry, and tough, overfat or overripe meats; she should know the relative merits of wilted and fresh vegetables, being able to tell when the former can be freshened or when they include too much inevitable waste to be economical.

Wise choice of foods involves possession of other lines of information

and experience which enables the housekeeper to purchase to good advantage. She must realize that out-of-season foods, like strawberries or green peas in January, will be more expensive, and no more nutritious, than the same foods in early summer, while foods which are uncommon at all times, like fresh mushrooms, will be more expensive than cabbage or carrots, which they closely resemble in nutritive value. She may select according to her circumstances, but she should do so "with her eyes open," and not in the belief that the superior virtues belong necessarily to the rare or the unusual. Then, too, she must take into account the quantities which can be handled advantageously in the home. It is the part of wisdom to purchase in quantity those supplies which can be easily stored and kept without deterioration, while such purchase would be decidedly unwise in the case of perishable foods, or if there are no proper storage facilities. She must take into account further the ability of the person who cooks to make acceptable dishes from the foods supplied. If she does not know how to make a palatable pot roast or similar dish from a tough cut of beef and does know how to broil a steak well, there may be some economy in choosing the steak. The suitability, with respect to the needs of the individual family, of the food purchased, is another important consideration. Thus, a good deal of waste comes from the purchase of meats which give too large cuts for the family tastes. For instance, if the chops purchased are so large that the individual portion which would be served (usually one large or two small chops) is larger than the eater's average appetite, part of the meat may be left on the plate and thrown away. The housekeeper, therefore, should take pains to provide materials which can be served in portions to "fit" the family tastes.

The relative amount of time, labor and fuel which is required in preparing foods for the table has a decided influence upon actual as compared with apparent cost. The busy housekeeper who wishes to prepare breakfast quickly may recognize this when she pays a higher price per pound for some ready-to-eat cereal, which at most only requires to be warmed before serving, instead of buying a breakfast cereal costing less per pound but which must be cooked for several hours.

Cookery and other matters pertaining to the preparation of food for the table are particularly important from the standpoint of economy and satisfaction.

The housekeeper needs such knowledge, whether she applies it herself, or whether she directs some one else. If, in addition to the art of

cookery, she understands relative food values and other technical matters pertaining to food and its uses, her task of providing a rational diet will be the easier.

The last factor, namely, the planning of meals, is very important and places a great responsibility upon the housekeeper, since it determines whether or not the diet provides the body with all the materials it requires. It is a problem which is often well solved by the housekeeper on the basis of empirical or other knowledge, but which is almost certain to be wrongly solved if such knowledge is lacking. Certainly, it is one regarding which there is much ignorance and many misconceptions.

A fundamental principle is that the diet, considered for any reasonable length of time, must supply a great variety of chemical substances combined in different ways for the "structural" needs of the body, and also must supply it with energy-yielding substances with which it may perform internal and external work. It seems apparent that a varied diet, reasonably generous in amount, is more likely to meet the body needs than one restricted or unvarying in its make up or scant in quantity. A general variety can be secured in two ways, either by using a considerable number of dissimilar food materials or by using varied methods of cookery with a smaller number of food materials. While both methods have their uses it is well to remember that the first is the one more likely to provide variety from a chemical standpoint.

A consideration of the results of American experiments and other data has led us to conclude that with our ordinary food habits, involving, as they do, the use of a considerable variety of foods in reasonably liberal quantities, one is justified for many purposes in discussing dietetics on the basis of energy only, since a diet which supplies 3000 to 3500 calories of energy per man per day, as ours so very commonly does, almost inevitably supplies the needed protein, ash, and other constituents also. Particularly is this the case when one takes pains to include in the diet a reasonable amount of milk, green vegetables and fruit. If we accept this conclusion as rational, it enables us to go ahead without controversy until the time comes when we have more abundant knowledge of the kinds and quantities of protein we need, of the functions of mineral elements and the best ways to meet our body needs for them, and of the nature of vitamines or other regulatory substances.

In its studies of methods for imparting information through its extension and other activities, the Department of Agriculture has endeavored to classify common foods in a way corresponding to their distinctive

functions in nutrition. The division must be more or less arbitrary, for some foods could go almost equally well in two or more groups. Thus milk, which is a general food, is included with the protein foods because it is a valuable source of this nutrient. Bread is a carbohydrate food, a protein food, and an ash-yielding food, but it is classed a carbohydrate food because its most obvious constituent is starch, and because we use it in the same general way as we do starchy foods like potatoes. The classification as now arranged consists of five groups, and it is the understanding that each of these groups should be represented, if not at every meal, at least once a day, and that if an excessive number of food materials from any one group are used in the course of a day the result is likely to be unsatisfactory from the standpoint of rational dietetics or of taste.

The groups may be described as: (1) Foods high in protein or flesh foods (except the very fattest), milk, cheese, eggs and such meat substitutes as dried beans, peas, and other legumes, and some of the nuts; (2) starchy foods; (3) fat foods; (4) watery fruits and vegetables (excluding dried legumes and fruits which have been dried or combined with much sugar); and (5) sweets.

The grouping is easy to remember and provides a guide for the housekeeper in the selection of food materials for a meal or for a day's ration and also a means of checking up and criticizing the meals which have been served.

Some common foods grouped according to their characteristics

(All five groups should be represented in the diet every day)

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
Foods characterized by protein	Foods characterized by starch and similar carbohydrates	Foods characterized by fat	Foods characterized by mineral substances and organic acids	Foods characterized by sugars
Lean meats	Bread	Butter	Spinach	Sirup
Poultry	Crackers	Cream	Peas	Honey
Fish	Macaroni	Lard and other culinary fats	Lettuce	Jellies
Oysters, etc.	Rice	Salt pork	Potatoes	Dried fruits
Milk	Cereal breakfast foods, meals and flours	Bacon	Turnips	Candy
Cheese		Chocolate	Apples	
Eggs			Oranges	
Dried legumes			Berries	
Nuts				
And other protein-rich foods	And other cereal foods	And other fatty foods	And other vegetables and fruits, raw or cooked	And other sweets

The following sets of menus contain none but wholesome and desirable food materials. These food materials, however, have been poorly combined so far as the protein, fat, and carbohydrate which they provide are concerned. The first set is characterized by much protein, the second set by much fat, and the third set by much carbohydrate.

Menus with protein predominating

Breakfast: Cereal cooked in milk, chicken hash with egg, popovers, butter, and milk as a beverage.

Dinner: Dried-bean purée, halibut steak, potatoes scalloped in milk, tomatoes stuffed with chopped beef, bread and butter, and frozen custard with nut cookies.

Lunch or supper: Baked beans, nut bread and butter, old-fashioned rice pudding, and a glass of milk.

The following shows a day's menus (not at all unusual or peculiar) in which fat foods predominate.

Menus with fat predominating

Breakfast: Oatmeal with cream, sausage, and corn bread and butter.

Dinner: Cream of tomato soup, mutton chop with creamed potatoes, greens cooked with bacon or pork, bread, and suet pudding with hard sauce.

Lunch or supper: Creamed salmon, lettuce with oil dressing, tea biscuits and butter, pumpkin pie, and a cup of chocolate.

The following is an example of three meals of combinations common enough but in which carbohydrate (starch and sugar) predominates.

Menus with carbohydrate predominating

Breakfast: An orange followed by corn cakes with maple syrup, and bread or toast and butter.

Dinner: Meat pie and baked potato, green peas, bread and butter, and cottage pudding with chocolate sauce.

Lunch or supper: Rice croquettes with jelly, rye bread and butter, baked apples, and sugar cookies.

In analyzing these one finds that into the first day's menu there went sixteen food materials other than fresh fruits and vegetables, of which nine were from Group 1. Milk entered into or made up ten dishes; eggs, four; nuts, two; and beef, fish, chicken, dried beans, and dried peas, each, one. Into the second day's menu went nineteen food materials other than fresh fruits and vegetables, of which nine were distinctly fatty foods (lard, oil, butter, cream, salt pork, and others), while the meat, fish, and even the cereal chosen were those which contained comparatively high percentages of fat. Into the third day's ration went eleven food materials, of which six were starchy or sugary (rye, wheat, corn, rice, maple syrup, cane sugar).

Thus, by unwise choice one characteristic of the well-chosen diet—a right proportion between protein and fuel—was omitted.

To benefit by well-selected menus, each member of the family should eat all of the kinds of food provided, for, if a person habitually eliminates some particular sort of food as fruits and green vegetables, he has failed to take advantage of the housekeeper's selection, no matter how good it may be. One must, speaking broadly, relish all kinds of food, which is a matter of good habits and good manners as well as of physiological importance.

The housekeeper who will learn the simple classification of foods mentioned above can easily see the relation of the different groups of foods to the character of the meals she provides. She need only go a step further to realize that it is wiser to provide dishes varied in character for a given meal, and also meals varying from those of the same day and varying from day to day. She can do this easily by taking care to see that the different food groups are represented in at least two of the three meals she serves each day. The more extended her information as to market facilities, the wider her knowledge of standards of quality, the wiser her selection of foods, and the greater her skill in preparing and cooking them, the easier it will be for her to plan meals by this or any other method, which will be reasonable, economical and satisfactory, as well as adequate.

THE NEED OF JUVENILE PLACEMENT DEPARTMENTS

The mother of today cannot confine her care and attention to her own children. She must effectively interest herself in the welfare of other children. The need in one direction is well shown by the following statements from the Leaflet of the Women's Municipal League of New York on April 4, 1916.

The state allows children to leave school at 14 to go to work.

In New York State 67,642 children under 16 left school to go to work during the year ending June 30, 1913.

Thousands of these children are stumbling from one blind alley job into another, getting no training, wasting the years when they should be learning a trade.

Not long ago a child of 15 came to one of the state public employment bureaus. She had been drifting around for two months trying to find a job where she could learn something. She had worked in a licorice factory

for three weeks; then she tried winding ribbons for a month. Finding this was leading her nowhere, she tried pasting for a week. Then she heard of the Employment Bureau and came to the superintendent for advice. What could the superintendent tell her? There are not many jobs for young children which give them a chance to learn. At present the superintendent has to depend on hit or miss information that comes her way. She cannot specialize in children's difficulties.

Information about the opportunity for training in jobs for children should be at the disposal of every superintendent who handles the placement of children.

Every day boys and girls of 16, 17, and 18 are coming into the public employment bureaus, after months and years of puttering in blind alley jobs, and asking to be placed as learners in positions offering advancement.

One of the registration cards bears the name of a young worker of 17. For two years she had been working in an establishment where her only job was "putting on tassels." "I don't want to do that any more," she said. "I want to learn something so I can get ahead."

A boy of 18 came into one of the offices. He had been working for three years in one of the metal trades. The metal trades are highly specialized, and in all this time he had been kept on one process. So at 18 he found himself no better off than when he started three years before. There are shops which offer training on more than one machine, so that by 21 this boy could have been a well-equipped workman if he had been started right.

Our young workers are wasting time which they cannot afford to waste. The public employment bureaus are forced to treat this vital problem on the side while finding jobs for adult workers.

It is impossible to get the right kind of information about jobs for children when the time is filled with the demands of older workers.

Placing juveniles is a different problem from placing adults. It is not enough to find a job for a boy. You must find a job that offers training and a chance to get ahead. It is not enough to find a job that offers training. It must be the right kind of training for that particular boy.

If the state of New York allows children to leave school at 14 to go to work, it should make sure that they get into the kind of work that will make them valuable citizens.

Left alone, the child will choose the job which offers the most money, regardless of whether or not it offers a chance to learn. When experience has taught him that this sort of work is getting him nowhere, he is no better off, for he has no survey of the opportunities of industry in his city, and can only feel his way about. This drifting from one footless job to another kills ambition.

So long as the state permits this waste of youth, the problem of adult unemployment will be aggravated.

CLOTHES AND THE BODY

CHARLOTTE GIBBS BAKER

The desire for protection and for decoration if not modesty led savage man to clothe himself. The growth of civilization, with increasing intercourse between men, with the development of industries, the extension of luxury, and finally the rise of fashion, has made the problem more and more complicated. The original idea of protection has often been forgotten and the body has been made to serve as a mere lay figure to display the creations of the costume designer, even being distorted to meet the peculiar fancy of the time.

From time to time in the past, attempts have been made to regulate by law the extravagance and extremes of dress, to emphasize, through dress, class distinctions and even moral status, but no such attempt has been made to protect the health of the individual. In the last half century in this country there have been a number of attempts at dress reform, notably that at the World's Fair in Chicago. These have failed to produce any marked effect, usually because of the extreme nature of the change suggested and the lack of artistic feeling in the designs offered. No doubt these movements have had some influence, but education, beginning with the child and continuing through life, rather than sudden dress reform seems to be the hope of better American dress.

Men, because of the demands of their business, have developed for themselves a costume which changes little and has utility rather than beauty for its commendation. In recent years as women have entered the industries and the professions and have taken up various activities outside the home, there has been a tendency toward a standardization of their dress. It is only quite recently that the subject of clothing has been taken up seriously in the schools.

Notwithstanding the fact that the last twenty years have seen an improvement in many ways, there is still room for betterment of dress. Good walking shoes have been available for some years, but the fashions of the last year have departed far from suitability in this respect. Corsets have been improved and the natural lines of the figure have been more closely conformed to, but lacing has not entirely disapppeared. Skirts suitable for walking have too often been accompanied by waists not suitable for street wear. Yet through all the freaks of fashion the

intelligent woman who wishes to dress appropriately for work or street may find styles which permit her to do so.

From an artistic standpoint dress should conform to the general lines of the body, suggesting rather than outlining the more prominent curves. Fashion in its everlasting search for novelty of silhouette often disregards these natural lines, though usually some part of the figure is outlined. Ornament should be used to decorate construction; too often decoration overweighs the construction. As the requirements of modesty are conventional, one should conform to the best convention of the time.

To meet the requirements of hygiene, clothing must regulate the body temperature, must provide for ventilation, for the evaporation of moisture, and must not burden or restrict the body in any way. The design of the clothing, the number of layers, and the quality of the material all have their function in determining the hygienic quality of a costume. Upon the outer garment falls the greater responsibility for the artistic effect, and the modesty of the costume. On the undergarments must fall much of the responsibility for the hygiene of dress. The requisites of the outer garment are much discussed; those of the undergarment are more frequently neglected.

Each of the fibers used for clothing has characteristics which affect its suitability for use next the skin. Wool and silk are poor conductors of heat. Because of the nature of the fiber when woven, wool holds much air in the meshes of the fabric, thus adding warmth to the garment. Although silk may be woven to hold air, it is not ordinarily so woven. Wool does not wash easily, and with continual washing shrinks and becomes hard, thus closing up the air spaces and preventing the access of the air to the skin. Wool is often irritating to the skin, and in overheated buildings, trains, and cars, is too warm for many people in active life. Silk is much pleasanter in feel than wool, and does not shrink. Although both silk and wool absorb water readily without seeming wet because the water is taken into the fiber, yet the nature of the fabrics as a rule prevents their taking up any large amount without becoming very wet.

Cotton and linen are cool fabrics because they conduct heat away from the body. When woven in the plain weave the fabrics hold little air. Neither of these materials has the quality of absorbing moisture into the fiber to such an extent as wool or silk, therefore when they absorb water they feel wet. Linen, particularly, becomes clammy and uncomfortable. The great advantage of these materials for garments

next the skin is the ease with which they may be washed and the fact that they may be boiled.

The structure of a fabric affects materially the suitability for undergarments. Knit fabrics have more meshes than woven ones and thus allow the passage of air to ventilate the skin. There is always air in the meshes, making them partial non-conductors of heat and thus adding to the warmth of the garment. The meshes also absorb moisture and hold it until it has a chance to evaporate. The efficiency of cotton, linen and silk is thus greatly increased by being knit rather than woven; with wool the advantage is not as marked since the woven material has many air spaces.

A mixture of wool and cotton combine the advantages of both. It does not irritate as does all wool, is not so warm, washes better, and, it may be added, is not so expensive as all wool. Wool and silk is a very pleasant combination but the cost is greater. Linen in the mesh weave is particularly desirable for hot weather, as it feels cool and does not become clammy.

Several layers of light weight clothing hold air between them and are warmer than a single layer of heavier material. When the warm layer of air next the body is changed heat is taken away from the body; therefore the clothing must prevent too rapid passage of air. On the other hand a garment impervious to air, worn either outside or as underclothing soon becomes uncomfortable unless it is loose enough to allow air to pass under it. Rubber coats and boots are exceedingly uncomfortable on a warm day, and even leather shoes are far from ideal in this respect.

The amount and character of the clothing worn must be determined by the individual, and will be influenced by many factors. Extreme youth and old age require more clothing than active middle life. The individual in poor health must be more protected than the well. Those living and working in heated buildings must dress accordingly, adding the necessary clothing for protection when going out. The calendar was formerly considered an unfailing informant as to the time to put on and take off the woolens, but fortunately for most of us it has lost its prestige.

Heat is produced by the body, and if this heat is unnecessarily wasted unnecessary strain is put on the body, making one more susceptible to illness. On the other hand too much clothing makes one sensitive to exposure to cold. Low shoes and thin stockings are not suitable

for zero weather, but a neck swathed in furs on a moderate day is little better. No definite rules may be laid down, but well informed common sense must be the guide.

Freshness of outer garments is desirable for aesthetic effect; cleanness of undergarments is imperative for hygienic reasons. As the skin can not perform its functions with clogged pores, so the clothing next the skin can not perform its functions with clogged meshes.

A physician of forty years ago tells of a woman who came to her office shivering with cold under seven petticoats. "Poor thing," the physician comments, "of course she could not keep warm, her body was so burdened carrying all those clothes it had no energy left to keep her warm." The modern union suit, with its even covering over all the body is a great improvement over two piece garments adding extra layers about the overclad waist. Tights or knickerbockers give much better protection than petticoats. The one piece dress distributes the weight and does not overburden the waist or hips. The corset is still not ideal, but is much better now than in times past.

When all women understand all the discomforts caused by bad shoes, and the joy of comfort in walking, perhaps the day will come when fashion can not lead us so far astray in this respect. Our ideas of beauty in footwear sorely need readjustment. We have discovered the beauty of the natural figure, perhaps we shall discover that of the perfect foot. The shoe manufacturer has an opportunity for profitable missionary work.

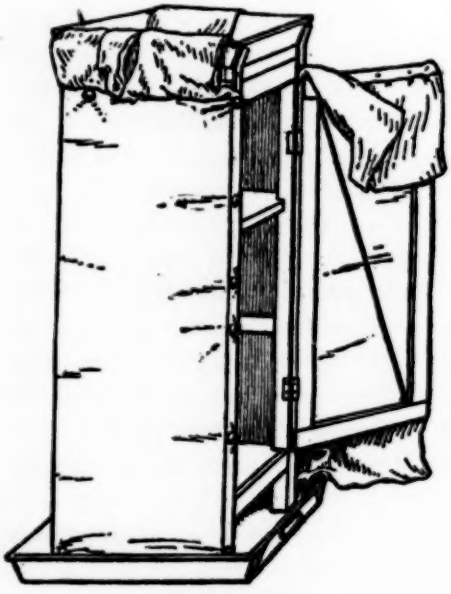
The day may come when perfect body freedom and natural grace will be more admired than false silhouettes, when beautiful fabrics will be made into suitable clothing expected to last for a time, and women will spend some of the time now wasted in endless shopping in developing and keeping their bodies in perfect condition.

AN ICELESS REFRIGERATOR

A very satisfactory device which may be made at home for use in hot weather is the refrigerator that depends for its coolness upon the evaporation of water from the covering of cloth that by means of wicks is kept moist from a pan of water resting on the top.

On a dry hot day a temperature of 50°F. may be obtained in this box, that may be made in the following way as described by the Department of Agriculture:

Make a screened case 3½ feet high with the other dimensions 12 by 15 inches. Use a solid top and place on this a shallow water pan 12 inches square, or fit the pan closely into the opening of the top frame and support it by 1-inch cleats fastened to the inside of the frame. Place two movable shelves in the frame, 12 to 15 inches apart. If the refrigerator is to be used indoors have the whole thing standing in a large pan to catch any drip. The pans and case may be painted white, allowed to dry, and then enameled. A covering of white canton flannel extending to the lower edge should be made to fit the frame. Have the smooth side out and button the covering on the frame with buggy or automobile curtain hooks and eyes, arranged so that the door may be opened without unfastening these hooks. This can be done easily by putting one row of hooks on the edge of the door near the latch and the other just opposite the opening with the hem on each side extended far enouch to cover the crack at the edge of the door to keep out the warm, outside air and retain the cooled air. This dress or covering must be hooked around the top edge also. Two double strips one-half the width of each side should be sewed on the top of each side and allowed to extend over about 2½ or 3 inches in the pan of water. Place the refrigerator in a shady place where air will circulate around it freely. If buttons and buttonholes are used on the canton flannel instead of buggy hooks, the cost should not exceed 85 cents.



Iceless Refrigerator

EDITORIAL

The Annual Meeting. All those who were fortunate enough to attend the meeting of the American Home Economics Association at Ithaca three years ago, or who have experienced the gracious hospitality of Cornell at the Graduate School of Home Economics, or at other times, must gladly have welcomed the announcement made in the April BULLETIN of the Association that the annual meeting is again to be held there with Miss Van Rensselaer, the President of the Association, and Miss Rose, joint-Head of the Home Economics Department, as hostesses.

To others may we say that the charm of the region, the campus unrivaled for natural beauty, the opportunity for delightful excursions, should prove an additional inducement to attend even though the chief attraction be the opportunity to become acquainted with the workings of one of the most successful departments of Home Economics, to avail one's self of the resources offered by Cornell University, and to gain the inspiration that comes from meeting one's fellow workers.

Since the meeting is to be held from June 28 to July 3, it will be possible to go directly from Ithaca to the convention of the N. E. A. in New York City, July 1–8.

A Personal Opinion. The editor of this JOURNAL believes that the ideal method is to remove from the home every possible bit of work that may be done outside it, though she realizes that at present this is not practical for a large part of the population and that for some it may not now be even desirable.

She believes that one purpose of the American Home Economics Association should be the working out of plans by which more of the household processes may be carried on in a community way. The coöperative laundry at Chatfield, Minnesota, offers a good example of this kind of work. She believes that raising the standard of bakeries and manufacturing plants both in regard to sanitation and to quality of food products is even more valuable work than instructing housekeepers how to prepare their own products.

She was consequently somewhat disturbed to find a whole column in one of our city newspapers devoted to a quotation from the students' work on the "comparative cost of homemade and commercially prepared foods" that was published in the March JOURNAL, with a definite conclusion in favor of the home prepared foods, though the contribution was guarded by the statement that "the data given and the conclusions drawn in this partial report are valuable largely because of the suggestions which they offer for more thorough tests along the same lines." We need much more experimental work and more consideration of the various economic factors involved before we are ready to draw conclusions. Because we need these experiments the JOURNAL has welcomed and puhlished contributions on this subject and will continue to do so in order that we may have a basis for judgment. Later we shall call attention to some of the difficulties involved in formulating conclusions and to the fallacies inherent in some of the articles.

Standardized Dress. Many of us can recall numerous efforts more or less sporadic toward the reform of women's dress. These have usually been based on the principles of greater freedom of movement and the requirements of hygiene. Some of the dresses proposed have of necessity been doomed to failure because of the complete neglect of the elements of beauty; while others have been fashioned with due regard to line and proportion as well as to comfort. Today attempts to standardize dress emphasize additional reasons that have not been so often urged: the economic waste involved in the various forms of competition in dress, in the frequent change of style, and in over-emphasis upon adornment; and the economic hardships enforced upon the worker through the extremely seasonal character of the women's garment-making industry, the low wages, and the bad sanitary conditions, due partly to risks that the manufacturer is forced to assume.

Perhaps these social reasons may be more effective in bringing about reform than has been the personal appeal. Certainly there is a growing feeling that in some way the more evident evils at least should be corrected. The Home Economics Department of the General Federation of Woman's Clubs in an article entitled "Clothes and the Woman" in the January number of the *Federation Monthly* suggests that there be put upon the market six or eight different standard styles of street suits from which each may select the kind best adapted to her special needs. Having purchased this becoming suit of good material one should be able to wear it until it is worn out, instead of discarding it within a year or less because it has gone out of fashion. This plan deals

with street clothes only. It seems sensible and should receive careful consideration.

Another solution is proposed by Miss Ronzone of the Home Economics Department of the University of Missouri. Making her appeal largely to the social responsibility of women, she suggests the adoption for all costumes of one design, modified slightly to suit individual types. She has devised such a dress that is adapted to different materials and that has proved satisfactory with many who have tried it. Whether one style of dress for all women and all occasions is practicable or desirable may seem a question with many, but it should not be answered without serious consideration of Miss Ronzone's work and her contribution to the dress problem.

COMMENT AND DISCUSSION

In looking over the article "The College Girl's Wardrobe," appearing in the April, 1916, issue of the JOURNAL, three things occur to me as requiring careful consideration by anyone using such a budget as a basis of expenditure.

The first of these is the entire absence of any allowance for the upkeep of the wardrobe. It is surely proper to charge up to one's clothing account the necessary expense of keeping the wardrobe in wearing condition. For instance, the cost of repairs is an appreciable item in the matter of shoes. On averaging personal accounts kept for several years, I find that the cost of repairs on shoes of good material is approximately 30 per cent of the original cost. That is, a pair costing $6 will, before they are ready for the discard, need repairs averaging about $1.80; and the cheaper the shoes, the relatively greater the price of repairs.

In figuring upon the cost of dresses made at home, it seems to me that too little has been allowed for the necessary findings. As a rule (referring again to an average of several years' accounts), the extras, such as thread, pattern, bindings, buttons, and simple trimmings, are about 12 per cent of the price of material for winter (woolen) dresses and from 20 to 25 per cent of the cost of cotton materials. These estimates are based on clothes of about the same quality as that indicated in the college girl's wardrobe.

Another thing which should be considered in a wardrobe budget is the proportion to be spent for the different articles. While I am not

familiar with prices in the West, it occurs to me that a coat costing $30—or one costing $18—is somewhat out of proportion to undervests at 8⅓ cents apiece or stockings at 12½ cents a pair. Would not a better level of expenditure be represented by a coat costing $25—or $15—putting the money thus saved into underwear and hosiery of better quality?

A college girl gives her clothes fairly hard wear, so it behooves her to consider with care the expense of repairs; and she should certainly avoid being a "whited sepulcher" of shoddiness in underclothing.

ESTHER SWARTZ.

THE SMITH-HUGHES BILL

This note, in answer to some of the objections to the Smith-Hughes Bill as it stands, should be read as a supplement to Miss Kinne's article, in the April number of the JOURNAL, on Terminology and the Smith-Hughes Bill.—THE EDITOR.

The friends of the Smith-Hughes bill feel that it is best to pass it with as few amendments as possible. The pressure of business in both the Senate and the House makes its passage somewhat doubtful, and it seems probable that if it does not go through at this session of Congress the work will need to be done over again from the very beginning.

It seems to be the general opinion of those who have studied the matter, that an amendment is desirable in regard to the Commission that would put the bill into operation.

It is the opinion of a number of teachers of Home Economics that the bill should be amended in regard to its Home Economics provisions. An amendment has already been proposed including a clause authorizing the federal government to provide money for training teachers of general Home Economics. Such an extension of federal control over state affairs would arouse much discussion in both the Senate and the House. The bill would seem to be wisely framed to avoid such a contingency. The original commission felt that most states have excellent provision for the training of teachers for the general phases of household economics or household arts.

Many experts in the field of education and many Home Economics teachers approve this bill as it stands. It would seem probable that the training of expert teachers for the more technical phases of the household arts would act as an impetus to the general teaching of the subject, and as a spur to the general teacher. Surely, Home Economics has so established itself that it need not fear the development of a new phase in its own field.

HELEN KINNE,
Chairman of Legislative Committee
American Home Economics Association.

THE QUESTION BOX

Conducted by a committee of the Science Section of the American Home Economics Association. Chairman, Prof. Amy Louise Daniels, University of Wisconsin, Madison, Wis. Questions may be sent directly to Miss Daniels.

Question: The following statements from *American Cookery* (March, 1916) do not accord with what I have been teaching. Will you state your opinion?

Oatmeal should never be cooked until it is mushy. Steel-cut oats are good for the reason that they do not form a sticky paste; they should be cooked no more than six minutes. Stir the oatmeal into boiling water and let it cook until it thickens, then set it aside to simmer for five or six minutes and you will have a most perfectly prepared breakfast cereal.

When oatmeal is so thoroughly cooked that it becomes a mush it will roll up into little balls in the colon, and produce one of the worst forms of constipation. For many years, some of the best specialists have forbidden oatmeal because of this fact.

No breakfast cereal should be cooked over eight minutes, because it is important to carry some raw starch into the lower part of the intestine, and this is done when cereals are not thoroughly cooked.

Raw food faddists have made some remarkable cures. A number of people have been practically snatched from the edge of the grave by living on a raw diet instead of the one they had previously followed.

However, there is a happy medium—it is not necessary to live on raw oatmeal and raw potatoes in order to get starch uncooked. The six-minute cooking rule gives a palatable, hygienic form of oatmeal and other cereals,

Answer: The clipping certainly states some surprising facts, if one may call them such. Starch which is uncooked, or from which that something which surrounds the starch grain has not been removed either partly or wholly, cannot be digested, that is, by the enzymes of the alimentary tract of man. The bacteria, however, may act upon it in the lower bowel causing much discomfort and more or less digestive disturbance (Reichert, E. T.: The Differentiation and Specificity of Starches in Relation to Genera, Species, etc., Part II, ,160, 1913, p. 80). In the raw steel-cut oats there are many starch grains that are uninjured; unless the temperature is sufficiently high, and the high temperature is sustained sufficiently long to destroy the continuity of the coating of the starch grains, these cannot be digested. Furthermore, unless the cereal is cooked so that the cells of which it is made up can be separated by the various chewing and digestive processes much of the food value will

be lost, for a considerable portion of the food materials will be undigested and therefore unabsorbed. Eight minutes is not sufficiently long for cooking those cereals which are not previously cooked, or very finely divided. (U. S. Department of Agriculture, Office of Experiment Station Bulletin No. 202; The Digestibility of Starch of Different Sorts as affected by Cooking, Edna D. Day.)

Question: How can the teacher make the housekeeping part of a cooking lesson interesting to girls fourteen years old who have had cooking lessons for four or five years?

Answer: Why spend so much time on cookery when there are so many other important phases to be considered? If it must be cookery, why not consider cookery from the standpoint of food values, marketing, amount that should be spent for food, planning, preparation, and serving of meals? One might introduce much house cleaning to get the house ready for a party if one wished to follow the old fashion. However, if it were my class, I would change the course and have the food work incidental in a course which dealt with the house and its structure, including heating, lighting, and cleaning. Quite young children can be interested in these subjects if they are rightly presented.

A Correction. Miss Daniels sends the following correction. We regret the error that arose from the misreading of her manuscript.—THE EDITOR.

In the question column of the May Journal, under the question "Why do breakfast foods disagree with some children?" the following statement is made on page 249: "By longer cooking the starch is not only more thoroughly cooked, but the *starch cells* of the cereal are more easily separated or broken apart when it is chewed." It should read: "By longer cooking the starch is not only more thoroughly cooked, but the *cells of the cereal* are more easily separated or broken apart when it is chewed." This is perhaps a minor point, but starch cells do not exist, and furthermore, the object in cooking the cereal a long time is in part to separate the cells of the grain as above stated.

BOOKS AND LITERATURE

Any book or periodical mentioned in this department may be obtained through the JOURNAL OF HOME ECONOMICS if the Journal price is listed.

Good Taste in Home Furnishing. By MAUD ANN SELL AND HENRY BLACKMAN SELL. New York: John Lane Company, 1915, pp. 140. $1.25. By mail of the Journal, $1.33.

A valuable addition to the list of books helpful to the average person who desires a home of good taste but who has not the knowledge of those principles which are the foundation of such a home.

The importance of balance and harmony is discussed in a remarkably clear way and illustrated with attractive little black and white drawings. The value of having only necessary furniture and the fitness to purpose of that furniture as well as its harmony with the structural lines of the room is well emphasized. A very definite basis for color schemes is also presented, as well as helpful suggestions concerning draperies from the viewpoint of design, arrangements and appropriateness of material. There is also an excellent chapter on the best way of lighting rooms for definite purposes.

Inside the House of Good Taste. By RICHARDSON WRIGHT. New York: McBride, Nast and Company, 1915, pp. 155. $1.50. By mail of the Journal, $1.64.

The title fits extremely well the book edited by Richardson Wright, editor of *House and Garden*. It is a book of many photographs which give us glimpses into the homes of people of good taste. These show, better than words can do, the essentials which make rooms livable, also that quality, personality, which converts houses into homes. Each photograph is accompanied with a few words of criticism, calling attention to the especially good features of the room and suggesting, when possible, improvements.

A chapter is devoted to each of the principal rooms of the house, the arrangement of the furniture for comfort and convenience, and its harmony in style and fitness to purpose.

A Guide to Laundry Work: a Manual for Home and School. By MARY D. CHAMBERS. Boston: The Boston Cooking School Magazine Co., 1915, pp. 104. $0.75. By mail of the Journal, $0.80.

As a basic text-book for teachers and students in Laundering, the *Guide to Laundry Work* will be found very helpful. This book will appeal also to the scientific housewife of today, as it states the most essential knowledge and fine art of laundering in a concise and clear manner with the fundamental chemistry in a form easily grasped.

The arrangement of the matter of the text proceeds in logical order from the first chapter, which deals with processes involved in cleansing and removing stains, to the last chapter which gives a detailed description and cost of appliances used in washing, drying and pressing.

Prominent among the distinguishing features of the book are:

(1) Time standards for ironing; to do the best work with the least effort and time is always the problem.

(2) The page devoted to the subject of setting colors before washing colored materials or restoration after washing.

(3) The experiments on water, the making of soap, the testing for adulterations and defects of soap and soap powders.

The well organized index and plain clear cut illustrations render this manual very usable as a reference book and text-book.

Changes in the Food Supply and their Relation to Nutrition. L. B. MENDEL, New Haven, Conn.: Yale University Press, 1916, pp. 61. Price $0.50.

In this lecture, delivered before the Second Pan-American Scientific Congress at Washington, D. C., in January, 1916, the author takes up a number of factors which influence the supply of food energy and its availability where needed. Reference is made to the forecast by Sir William Crookes, in 1898, that the world's wheat supply would fail to meet the demand within 30 years and the author cites a number of factors which make such speculations futile, among them being increased acreage, improved agriculture, and progress in nutrition and food chemistry. The various methods of food preservation, such as cold storage, desiccation, and food conservation, like the better utilization of by-products and new foods, are discussed at length with reference to their effect on food supply. In considering the importance of transportation in this connection it is stated that "the development of commerce among nations having adequate means of communication has rendered the distribution of food materials easy and developed a sense of security (under normal conditions) against failure of food supplies. The growing organization of transportation facilities has encouraged the introduction of dietary changes never thought possible or even contemplated a few generations ago."

The author points out that, while the dietary habits of a community or nation may appear as fairly fixed from generation to generation, changes in eating habits are quite common, and gives as examples the increasing use of fresh fruits, sugar, edible fats, green vegetables, etc.

Attention is called to the contributions of physiology and food chemistry to the problems of food supply, especially the knowledge of the importance of the so-called "accessory diet factors" or "vitamins" and the amino acid content of the proteins. Speaking of the importance of improvement of household science in a better understanding of the principles of human nutrition, the author says, "herein lies the significance of the notable 'home economics movement' of the present time. Nutrition and its relation to the food supply is in no small measure a problem of the home. Just as the lessons of modern science are permeating the practice of up-to-date agriculture, so they ought to influence and modify the performance of the household" The numerous footnote references throughout the volume add to its usefulness.

Schools of To-morrow. By JOHN DEWEY and EVELYN DEWEY. New York: E. P. Dutton and Company, 1915, pp. 316. $1.50. By mail of the Journal, $1.61.

Those who have read over and over again Dr. John Dewey's *School and Society* and whose educational ideals have been molded to a great extent by that book, have welcomed this new work, written in collaboration with his daughter, that shows some ways in which the ideals of the former book have been worked out concretely in more and more schools. The schools used for illustration are selected from various parts of the country and include that of Mrs. Johnson of Fair Hope, Ala., the University School, Columbia, Mo., The Francis W. Parker School, and some of the public schools of Chicago; one of the Indianapolis public schools, and the well known Gary schools. The parent who wishes to gain an understanding of the aim and purpose of the most modern type of education and an idea of what the school may become, will find this book most illuminating. Every teacher should read it not only for the information gained, but for the inspiration it will bring.

The teacher of Home Economics will be especially interested in Chapters VII to X, dealing with the relation of the school to the community; the school as a social settlement; industry and education; democracy and education. The description of the work for girls and boys in Indianapolis in one of the poorest districts of the city, with the account of the influence that this school

gained on the home and the community, marks an achievement that cannot fail to point the way to much greater opportunities for the Home Economics teacher than have yet been realized. Education through industry is illustrated by the familiar work at Gary, by some of the Chicago public school work, and that of Cincinnati. In connection with the latter it is suggested that factories and stores will not be the only community institutions that will furnish laboratories for the school children of the city. The city college, with its plan of giving the home economics pupils practice in connection with the city hospital, and the engineering and architecture students work in the machine shops and draft rooms of the city, is pointing the way toward the further development of such coöperation.

One cannot close a review of this book without speaking of the great emphasis that it places upon the relation of education to democracy.

"The conventional type of education which trains children to docility and obedience, to the careful performance of imposed tasks because they are imposed, regardless of where they lead, is suited to an autocratic society. . . . . Children in school must be allowed freedom so that they will know what its use means when they become the controlling body, and they must be allowed to develop active qualities of initiative, independence, and resourcefulness, before the abuses and failures of democracy will disappear."

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The House on Henry Street. By Lillian D. Wald. New York: Henry Holt & Co., 1915, pp. 317. $2.00.

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NEWS FROM THE FIELD

The Meeting at Urbana. A goodly number of Home Economics people gathered at the University of Illinois April 18 to 20 to attend the meeting of the American Chemical Society that for the first time offered a definite Home Economics program for part of its biological section meeting.

Papers were presented by Dr. Ruth Wheeler on A Study of Carbohydrates as Milk Modifiers and Dr. Louise Stanley on The Occurrence of Creatin in the Urine of Children. Dr. Emily C. Seaman of Teachers College gave a Report of a Survey of the Food Conditions at Sing Sing Prison and read a paper on The Relation of Biological Chemistry to Problems of the Community. Mr. Edwin Lefevre presented a Bacteriological Study of Hamburger Steak. Mr. H. L. Lang with others gave a paper on Cleaning Silver by Contact with Aluminum in Alkaline Solution, and Iron Rust and Its Removal. Miss Elizabeth W. Miller read a paper on Solution of Antimony from Some Enameled Cooking Utensils. Professor Bancroft of Cornell University gave an informal discussion of Washing and Cleaning, Whipped Cream, and Mayonnaise.

Besides the meetings there was a delightful luncheon on Wednesday noon at the Champaign County Country Club, given by the ladies of Urbana, a reception at the Woman's Building, a luncheon given to the Home Economics visitors by the Household Department of the University, and a subscription dinner at the Masonic Temple.

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Conference of Home Economics Extension Workers. The leaders in Home Economics Extension Work in the Middle West met in Chicago at the Sherman Hotel, April 11 and 12, for conference. The meeting was called to order by C. B. Smith, chief of the Office of Extension Work, North and West, States Relations Service, U. S. Dept. of Agr., who presented Miss Florence Ward, the new executive in the Office of Extension Work, North and West. Miss Ward presided at the various sessions. The states represented were: Illinois, Indiana, Iowa, Michigan, Missouri, Ohio, Wisconsin, and Pennsylvania. The extension work carried on in each of these states was reported in detail in most cases by the head of the Home Economics Department and the state leaders in Home Economics Extension.

In the majority of the states the work in movable schools is especially well developed and this is supplemented by club work of various types.

Considerable interest was manifested in the possibilities of women county agents and two out of the three working in the Middle Western States were presented: Miss Benefiel, from Kankakee County, Illinois, and Miss Pettit from Erie County, New York.

Exhibits of working equipment from the different states were shown and explained on Tuesday evening.

Wednesday afternoon, the work carried on by the Home Economics Division of the States Relations Service was discussed by Dr. Langworthy, Miss Hunt and Miss Bailey. Miss Ward told of the extension work in the South and Dr. True explained the development and limitations of the extension work as carried on under the Smith-Lever Act. The meeting closed with the brief reports of committees appointed to summarize the discussions of work of the states represented.

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New England Extension Workers. The third annual meeting of the Home Economics Section of the New England Extension Workers was held in Boston, March 2 and

3 with Miss Laura Comstock of the Massachusetts Agricultural College as chairman. An extension worker from each of the New England states was present and gave a five-minute report of the work in her state. Miss Minnie Price, the lately appointed woman worker of Hampden County, Massachusetts, told of her experience during the past year.

Mrs. Julian Dimock of Vermont and Miss Maud Hayes of Connecticut spoke of the value of standards in the judging of products.

Better school children, with the idea of giving attention to the noon lunch, was the topic by Miss Sayles.

Miss Florence Ward, Dr. True and Professor Clinton from Washington were present at one meeting.

The following score cards were agreed upon to be tested out by the different members to see whether they were workable ones or not.

Bread: Proper size of loaf, 9 x 3½ x 3½

		Per Cent
External appearance		
Color, Size, Shape		15
Crust		
Depth, Texture		10
Crumb		
Color	5	
Grain	10	
Lightness	5	
Moisture	5	
Thoroughness of baking	10	40
Flavor		35
		100

Canned fruits

Jar		
Shape, size, label	5	
Neatness	5	10
Fruit		
Arrangement	5	
Shape	5	
Color	5	
Texture	10	
Flavor	30	55
Juice		
Clearness	5	
Consistency and flavor	15	20
Proportion of fruit to juice		15
		100

Canned vegetables

Jar		
Size, shape and label	5	
Neatness	5	10
Vegetables		
Arrangement	5	
Shape	5	
Color	5	
Texture	25	
Flavor	35	75
Fullness of pack		15
		100

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The Maryland Home Demonstration Conference was held at the Maryland Agriculture College, College Park, May 22–27 with Miss Katharine A. Pritchett, presiding. The United States Department of Agriculture was represented by Dr. Knapp, Mr. O. B. Martin, Miss Creswell, Miss Powell, Dr. M. N. Straughn, Mr. Harold S. Lang, and Mr. J. M. Kingborne. The speakers from the college were President Patterson, Mr. T. B. Symons, Mr. Alford, Mr. Shaw, Mr. Brigham, and Mr. Stanton.

The Home Demonstration work in Maryland including Girls' Club work, movable schools in Home Economics, and single lectures and demonstrations, have been carried on this year by the state agent, Miss Katharine A. Pritchett assisted by Miss Florence J. Hunt and Miss Kathleen Calkins and nine county agents.

At the conference lectures and demonstrations were given on poultry husbandry, gardening, canning, jelly making, butter and cheese making, bread, and labor saving devices. Miss Helen Comstock, agent of Kent County, prepared a balanced meal using food produced and canned by the Girls' Clubs. Miss Virginia Moore, state agent of Tennessee spoke of the organization and development of work in Tennessee.

New York Y. W. C. A. Cafeteria. Many who are planning to attend the meeting of the N. E. A. in New York will be glad to know of a cafeteria laterly opened by the Y. W. C. A. at 29–33 W. 36th Street.

The Association conducted at their headquarters at the San Francisco Exposition a cafeteria with a seating capacity of 500. This was open for continuous service between 11 o'clock in the morning and 8 o'clock in the evening, and for many weeks the attendance ran over 4000 daily, while on one occasion it served 6119 people. There was also a less formal luncheon service at the club house on the amusement zone.

The new venture in New York City is undertaken as a demonstration of what a successful cafeteria on a large scale can be, especially when it has connected with it features that business and suburban visitors and shoppers appreciate and almost require. The Association hopes by this means to show local Associations the various possibilities, and also plans, in connection with the summer theoretical course, to make use of this opportunity to give women who have good technical training and some Association experience a knowledge of how to do things on a larger scale than they have been accustomed to handle.

This is "A good place to meet your friends, rest, or change your dress for the evening. These conveniences are for your use."

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A School Cafeteria. The effective way in which one woman may bring about changed conditions in school lunches is illustrated by the work of Mrs. Caroline Kemper Buckley, in Shreveport, Louisiana. She realized the necessities of a cafeteria in the school and studied up the subject, coached two doctors to speak in regard to the need, and persuaded the school board to start the plan.

The first attempt failed because the board paid no attention to the carefully prepared data and took as a manager an inexperienced woman. The board then turned it over o the women who equipped two big rooms in a basement, making it white and orderly, with flowers on all the tables nearly every day, so that no single objection has come to the position of the lunch room.

For the opening days provender was begged. There was so much interest that men came with heavy loads of food. One man carried fifty pounds of hot meat a whole mile. With this beginning the cafeteria could hardly fail to be a success.

The lunch room covers the needs of two schools on one campus. Since the beginning portions have been enlarged, dainties have been added, and now twenty-five five cent tickets are sold for a dollar. Organizations in town frequently send three or five dollars for tickets that may be used at the discretion of the teacher when needed, so that there may be provision for every child.

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The School of Domestic Arts and Science in Chicago has for the last year occupied the entire fifth floor of the Tower Building, Madison Street and Michigan Avenue, with an admirable equipment for the uses of the school.

The work of the school is divided into two general divisions, that for the homemaker and vocational work. In the homemaker's department the women, both in regular classes and through lectures, are studying the management of the home. The vocational department maintains the luncheon room, and girls who are admitted to regular training are paid a wage for what they do. The sewing department plans a similar type of work for another year.

Four lectures are offered each week, one of them free, with an average attendance of about fifty. These reach the practical homemaker who has no time for class work. A homemaker's round table for informal discussion of the problems of the home has been established this year, meeting twice a month, open to the members of the school. The bulletin of the school has been enlarged and made of interest to women in the home.

During the year announcement has been made by Mrs. Potter Palmer of the selection of this school as beneficiary of the fund left from the Woman's Department of the World's Fair. This was not a government fund, but was derived from sales in the Woman's Building, and was placed in Mrs. Palmer's hands with full discretion as to its disposal for the benefit of women. The fund amounts now to $100,000. The principal will be turned over to the Trustees of the School of Domestic Arts and Science as a permanent trust, the income to be administered by the Board of Managers of the School of Domestic Arts and Science. Announcement will be made as soon as possible as to the first use to which this income will be put.

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A Successful Practice House. The practice house at Stout Institute, Menomonie, Wis., is of the type that includes residence in the house, not merely making use of the rooms for the teaching of furnishing or for the serving of meals. The cottage used for this work is a thirteen-room house and is occupied by the girls in groups of nine, for a period of two weeks, four or five girls entering each Saturday night. The work is divided into five departments, each presided over by a manager, the meals, daily care of the house and entertaining, laundry, special cleaning, and special baking. The work is so well organized that each girl is able to perform her duties while still carrying on the regular work of the school. The cottage is owned by the school, and weekly expenses are met by the board paid by the girls. All accounts are kept by the girls. The value of economy is learned through the careful management and preparation of meals; organization is gained through the necessity of planning and doing many duties; and the value of time through the realization of the necessity of doing work thoroughly and quickly.

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Chicago Normal College Summer School. For the first time since the days of Colonel Parker the Summer School is open to teachers outside the city of Chicago. The household arts program includes a course in dietetics with laboratory work in the preparation of food, chemistry of food, and beginning and advanced sewing. Miss Jenny H. Snow, Head of the Department will be in charge of the work. The dates are June 26 to July 28.

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Ohio State University reports a variety of work in Home Economics extension. The work is directed by the head of the Home Economics Department and the force includes an assistant supervisor and nine instructors. There are two types of movable schools carried on, the first for village and farm women, of which there were forty-eight in 1915–1916, the second in connection with county normal schools. As a result of the week's work in one normal school, with the subsequent assistance of the university department, a self-supporting lunch room has been established and work in sewing and foods has been introduced into the high school, which is in consolidation with the normal school.

A plan is also in operation for teaching Home Economics in the rural schools in connection with the school lunch. This helps to overcome the three main difficulties usually found in the way of introducing definite educational work in Home Economics into the rural schools. Lack of special training on the part of the teacher, lack of time in an already overcrowded program, and lack of space and equipment have often been prohibitive for such work. These are overcome to a great extent by instruction in the preparation of the necessary noon lunch. Each printed lesson-help for teachers contains a list of necessary equipment, an order list of supplies, directions for the preparation of the food, questions to be answered in notebooks and suggestions for work to be done at home.

Homemaking Clubs for girls are being organized for the purpose of interesting them in activities of the home and community, and stimulating helpful social life. Printed cir-

culars give instruction and definite plans for the work to be done.

The walls of the new Home Economics building at Ohio State University are rapidly going up. The building, which is to be ready for occupancy by September 1, 1916, is a three-story fire-proof brick structure, costing approximately $150,000.

Space is provided for research, and institutional laboratory—Home Economics extension work and an experimental flat as well as the ordinary laboratories, class rooms, and offices.

The building is heated from a central plant, and the ventilation system includes air-washers and humidifiers. A vacuum cleaning plant is to be installed also.

The plans for the building will be given later.

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Brief Notes. The twentieth annual conference of the National Congress of Mothers and Parent-Teachers Associations was held from April 4–9 in Nashville, Tennessee. The next meeting will be an international one, and will be held in Washington, D C., in April, 1917.

The Women's Municipal League of New York City, Mrs. Henry A. Stimson, President, is publishing weekly a series of leaflets on Women and the City's Work. The leaflets deal with school conditions, legislative bills, surveys of the districts of the city, achievements of the city administration, community service other than school work undertaken by women, the Gary plan, and other topics of immediate and vital interest. The effective way of stating conditions is illustrated by the graphic presentation comparing opportunities of the child in Yorkville schools and in Gary schools, and in a quotation from one of the leaflets given in another part of this JOURNAL. The price of the leaflets is twenty-five cents a year. It would be well worth while for every mother and teacher to subscribe for them.

The Women's Municipal League of Boston issues monthly bulletins from December to May, giving in another form as interesting an account of their activities as those of the New York Association. The bulletin for January, 1916 is issued by the department of Food Sanitation and Distribution, and includes the inspection score card of the Board of Health; a photograph of the clean food shop in the League's traveling exhibit; the report of the Candy Committee that has been undertaking an investigation of soda fountain conditions and advocating the adoption of paper cups; some effective methods of getting rid of rats, with copies of posters; and an account of open-air markets in Newton Center and in New York City.

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Institution Economics Section. The meeting of the Institution Section of the American Home Economics Association, ordinarily held at Lake Placid, will meet this year at Cornell University, Ithaca, New York. Wednesday, June 28, has been set for the meetings of the Institution Section, and during the following days, June 29 to July 3, when the general Home Economics Association meets, opportunity will be afforded those interested in Institution Management to have repeated and informal conferences and round tables which will be of the greatest advantage to all.

Any special questions or suggestions for subjects may be sent to the following chairmen of committees: Housekeeping supplies, Mrs. Dewey (Lake Placid); Laundry management, Miss Balderston (Teachers College); per capita costs, Mr. Cole (Harvard University); dietitians, Miss Atwood (Johns Hopkins); school lunches, Miss Boughton (Philadelphia); cafeteria management, Miss Hunn (Cornell University); dormitory management, Miss Goodrich (Simmons College); waste, Miss Watson (McDonald Institute, Guelph); courses of instruction, Miss Arnold (Simmons College).

Inquiries regarding rooms, rates, programs, etc., may be addressed to Miss Martha Van Rensselaer, Cornell University, Ithaca, New York.

Emma H. Gunther, Teachers' College, is secretary of this section.

ANNUAL MEETING OF THE AMERICAN HOME ECONOMICS ASSOCIATION

The annual meeting will be held at Cornell University, Ithaca, N. Y., June 28–July 3, inclusive. June 28 will be devoted to section meetings, and June 29–July 3 to the general program.

The program will be arranged to allow for group conferences as well as for the presentation of general topics for discussion. To this end, the forenoon will be given over to general subjects; the afternoon in part to conferences and in part to organized excursions. Evenings will be held for formal addresses and entertainments, both social and educational.

On Tuesday, the 27th, at seven-thirty o'clock, the meeting of the Executive Committee will be held in the Home Economics apartment.

Wednesday, the 28th, will be devoted to meetings of the various sections of the Association.

Institution. Miss Sarah Louise Arnold, Simmons College, Chairman.

Extension. Miss Gertrude McCheyne, University of Utah, Chairman.

Science. Miss Ruth Wheeler, University of Illinois, Chairman.

Programs will soon be announced for these sections.

Wednesday evening there will be an informal reception, a roll-call of members illustrated with lantern slides. Some one will be asked to speak for each institution represented.

Conferences on textiles and clothing, Home Economics in elementary schools, and journalism in Home Economics, will be held during the meeting.

Friday evening the women students of the Department of Home Economics will present the play "Omelet and Oatmealia," a musical comedy. The proceeds will be used for the Ellen H. Richards Fund.

Several times during the program, moving pictures relating to Home Economics subjects will be presented in Bailey Hall.

All institutions are invited to send material illustrating their work. It will be on exhibition for the Association and will be returned to the institution sending it.

Ithaca affords a most unusual opportunity for outings and recreation. For each afternoon trips will be planned to some points of interest, including Watkins Glen, The George Junior Republic, Enfield Falls and Taughannock Falls. Every one is urged to bring strong shoes and old clothes for tramping. Stop-over tickets for Ithaca may be secured on through tickets to New York. Special railroad rates will be announced.

Rooms will be secured so far as possible in Cascadilla dormitories. One of the men's residential halls will be opened to men attending the conference. Rooms may be secured for an average of $1.00 a day, and board may be secured at the Home Economics cafeteria at a moderate cost.

The next BULLETIN of the Association will give the full program. Information regarding program and accommodations may be secured by addressing the Department of Home Economics, Cornell University, Ithaca, N. Y.